

ELEMENTS OF ECONOMIC PRINCIPLES.

BY

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PREFACE.

There are numerous books on the various problems of Indian Economics, but there are not many on the general principles of the science written by Indian authors. The unfamiliar description of economic facts given to illustrate theoretical laws in the books in use often makes an intelligible grasp of the subject difficult to the Indian student. This book attempts to provide an easier approach to the subject.

There is little scope for originality in an elementary treatise. My only care has been to explain economic theory in as easy and clear a manner as possible without sacrificing accuracy. Dealing with any particular point profoundly has been less valued than giving a working, clear, and comprehensive knowledge of the subject. I have, however, tried to clarify the position in regard to organisation and enterprise a little, and the general theory of value has been applied to all the shares in distribution including profits.

On the question whether services are wealth I have followed the late Prof. Marshall, though not altogether for the same reasons. Although many other economic writers also agree with the view taken, still the force in the opposite view recognising wealth as including all goods possessing utility, scarcity and transferability, so as to encompass everything which can satisfy wants and can be the subject of economic activities, is recognised. My submission has been that the same kind of difference obtains between

wealth and services as it does between labour and capital. Services satisfy our wants actively and wealth acts as passive goods. It has been suggested, therefore, to regard the two as two different kinds of goods capable of satisfying our wants, and to complete the definition of Economics by adding "services" to wealth in it.

For the deficiencies of language and printing no apologies can be sufficient. For these, as also for those of the treatment of the subject itself, I crave the indulgence of the readers, which will, I hope, make the book useful inspite of its shortcomings. Any suggestions for improvements will be thankfully received.

A great debt of gratitude is due to all those authors whose writings have enabled me to lay this exposition of the subject before the Indian reader, as also to my teachers, whose instructions and guidance in my studies have contributed so materially towards the achieving of this aim. It will be idle to attempt a discharge by tendering individual thanks. It is all a one side account which can grow only on my debit side.

My humble hope and prayer is that even as it is the book may be found useful.

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 INDORE, C. I. }
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J. P. SINGHAL

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ELEMENTS OF ECONOMIC PRINCIPLES.

BOOK I.

CHAPTER I

WHAT IS ECONOMICS.

* * * * *

We are all busy in the business of life. All of us are trying to earn some money or are preparing to earn money so that with the help of that money we may purchase things to satisfy our wants. Our wants are many. Food, clothing, house, conveyance, stationery and so many other things are required to make life comfortable. When a person becomes ill he wants a doctor to help him and he must pay his fees. If we want to live in security we must pay taxes to the state which ensures this security. For all these purposes we require money, and to get money we must do something. The carpenter makes tables and chairs and other articles of wood and sells them to others and with the money he so gets he purchases those things which he requires. Those, who do not make things, sell their labour. Thus the clerk goes to the office, works there for a number of hours and gets a salary. The singer sings a song and is paid something. The result is the same whether you sell your labour or the product of your labour; in both cases you get something as a result of your labour. This something may be money or the things which are directly useful. Remember that money is only a means of getting the required

things. One cannot eat or wear money but can purchase food and cloth with money. In villages the village menials are often paid even now for their services not with money but with grain by the farmers. What one wants are the things that can directly satisfy his wants ; he accepts money only because he can purchase such things easily with money. These things which directly satisfy one's wants, and to get which he himself produces some things or some useful labour, are called wealth. The activities which one undertakes to satisfy his wants are called economic activities. These activities as has been explained above, consist of his producing something useful and exchanging it with something else which may satisfy his wants. It is clear that this exchange of wealth or useful things can take place only where there are a number of persons producing different things. One man cannot produce all the things required by him, and so different persons in society do different works and the activities of all together tend to satisfy all the wants of all the persons. So our economic activities are carried on in a society and not alone.

Now it is very interesting to enquire how it is that in a society where many persons are doing different things their activities are coordinated, how are the prices of various things under various conditions determined and what portion of those prices of goods goes to the labourer in the factory and how much to the employer, and how does this share affect the health and prosperity of the labourer and even of the whole nation, how the price of one article becomes lower and higher, under what conditions a large factory can prosper, and what are the proper conditions for maintaining a cottage industry. All these and many other questions of the principles

Study of our activities in society for this purpose is very interesting.

governing such phenomena arise when our economic activities are carried on in society. They would not arise for a lonely Robinson Crusoe on a lonely island. For him the question would be how to cut wood from the forest to make his house or how to get his food, but they will not be the subject of an economic science. His problem will not be the discovery of general principles governing a class of phenomena but the discovery of proper modes of activity to gain his end.

Economics is this study.

Economics takes the society as existing and tries to enquire into the principles of a man's economic activities as a member of such society. We may therefore define Economics as

Definition. "A body of the principles underlying and governing the activities which a man undertakes in society for producing and consuming wealth to satisfy his wants."

Formerly Economics used to be defined simply as "the science of wealth", and an idea became current that Economics taught how to become wealthy. But this was quite wrong for two good reasons. Economics is not an art but is

a science. It does not teach us how to act so as to achieve a particular object, as for example the art of painting

It is a body of principles and not of practical rules. Is a science not an art.

prescribes the way in which a good painting may be produced. It does not tell us the method of becoming wealthy. It enquires into the principles governing our economic activities which we undertake to satisfy our wants. It is a body of principles and not of rules prescribing modes of actions. Secondly the production of wealth is not the aim of the study of Economics nor is it the only department of the science. Wealth is

produced for satisfying the wants of man, and the important point is this satisfaction. If this satisfaction were possible without the production of wealth there

would not have been any department of production in the science at all. So the chief point is the satisfaction of human wants, and the considerations of human welfare now occupy a very important place in economic discussions. The production of wealth is only secondarily important. Now the centre of gravity has been shifted from wealth to the welfare of man and the department of consumption is becoming increasingly important.

People are sometimes very fond of calling Economics a "selfish science", but this is a not a selfish mistake. Whatever ground there was for such an idea in the old conception of Economics is not present now. The idea of selfishness was based upon two misunderstandings. One was that Economics taught one how to increase his wealth. But as stated above this is not the case. While Economics notes and examines those activities which increase the wealth of a nation it also examines the effect which those activities have upon the general welfare of the society, upon the health, comfort and prosperity of the great mass of the community and thus draws attention not merely to wealth but even more pointedly to human welfare.

Another ground for the charge of selfishness was the theory of the "selfish man." It was laid down that in economic activity a man acts in the way to which his selfish interest directs. But it is now recognised that selfish motives, though some of the strongest and the most prevalent motives in business transactions, are not the only ones. Thus even ordinarily a person saves wealth not merely to enjoy it

himself at some later time, but often for the sake of others, his children and his relatives, and sometimes even for advancing some charitable object. Many beneficent economic activities like those of the co-operative movement have been given rise to by altruistic motives. The whole factory legislation and the laws about trade unions are results of an anxiety for the welfare of the whole society and Economics rightly examines the conditions, the necessities, and the effects of such legislation and movements. Thus now it is abundantly clear that the theory of the selfish man is partially true, only so far as it impresses upon us the importance which we should assign to selfish motives, but a perfectly selfish man is not found in actual life nor is contemplated by the science : it is a mere abstraction and applies only with the usual scientific formula "other things being equal."

It has been explained that Economics is a science and not an art. To make this perfectly clear the name of the science is now generally accepted as Economics. Formerly it was called Political Economy which meant "the management of the political household or the state." But this was misleading and so it is not termed Political Economy now, but like other sciences its name also has come to be Economics.

Economics is a positive science and is not speculative like metaphysics. It examines the economic phenomena as it finds them to be and does not speculate about what they may be or may not be. It may note the tendency of any economic activity towards any particular direction, but the reason for such notice will be the positive existence of that tendency in the present. Economists sometimes indulge in speculation about the

best form of economic organisation, but that speculation is not a part of the science of Economics proper. It may be an application of the inferences and lessons derived from the examination of any economic problem for the formation of an ideal organization, which may or may not be actually realised but such formation of the ideal is distinctly separate and different from the science itself.

Similarly Economics is not a normative science like Ethics. It does not set up any standard of economic conduct as Ethics does in morality. Nor does Economics pass any ethical judgement on any economic activity. It may note the effects of such activity but will not prescribe what should be the form of such activity to achieve any particular economic "good". From this point of view it is neither an unselfish science nor a selfish one, it is a neutral science like other positive sciences, Psychology, Physics and Biology. It simply examines the existing phenomena. Of course in the examination it does not forget the conditions of human welfare just as it does not forget the conditions of increasing and decreasing wealth, which is necessary for satisfying human wants. It should be remembered, however, that in practice economists do discuss also the goodness or badness of economic activities and do opine on the ways of advancing human comfort, for without such practical discussions the study of the science would be meaningless, useless and sterile, but at the same time it should not be forgotten that such discussions are not a part of the science itself. They are a digression.

A social science
but not a part
of Sociology.

We have seen that Economics examines man's economic activities as a member of society and so is a social science like Politics, but is not a part of Sociology, unless Sociology should be a name

given to the whole group of social sciences. Sociology proper is a science of the general principles of social evolution, while Economics deals with the existing economic activities of a society. It is related to Politics like a sister social science, it notes the effects of political conditions on economic activities and of economic activities on political conditions but otherwise is distinct from Politics.

It depends for its data a great deal on the mental science Psychology and on the physical sciences. The reason is that it deals with the activities of man, and so naturally finds valuable aid from Psychology which deals with the phenomena of the mind of man. On the other hand the economic activities are related to wealth which consists mostly of physical objects, and so it is natural that the physical sciences should supply it with much valuable information. Thus the old theory of a perfectly "selfish man" has been discarded on a fuller knowledge of the psychology of man. The laws of diminishing returns and increasing returns which tell us under what physical conditions crops grow less or more than their due proportion to the expenses of cultivation are physical laws having immense economic significance. Economics only takes some of its data from these sciences and is otherwise as independent of them as any other science is.

From these data and from others which it reaches by an induction from economic facts it derives its conclusions and verifies them again by experience. Thus the science uses both the methods of deduction and induction in their proper places and discards neither, but still it depends to a great extent upon induction as it is always examining economic facts in detail and

Takes its data from Psychology and physical sciences.

The method includes deduction, induction, historical, graphs and statistics.

makes ample use of statistics. It takes its facts for induction not only from existing phenomena but also investigates the economic conditions of the past times by the historical method. Then always checked, compared and confirmed by such facts deduction plays a great part in building up the body of its principles. These principles it illustrates with the help of graphs.

Such then is the science of Economics. Its subject matter is primarily man who undertakes certain activities for satisfying his wants. The principles of these activities of man in society form the science. It finds that to satisfy his wants man first produces wealth and then consumes or uses that wealth. He first earns or gets and then spends it. We have seen above that as a man does not produce all that he requires he exchanges some of his products with those of others.

In society very often many persons unite to produce one article as is the case in a factory, and so when the article is sold part of the proceeds go to the labourer and part to the owner of the factory. Therefore a fourth department, that is of "distribution" is added. The worker must first produce an article, then it should be exchanged with something which is wanted, then that something should be distributed between the different parties who produced the original article jointly and then will each party be able to use his share for his consumption or the satisfaction of his wants. So before the real object of the whole economic activity—consumption of wealth or satisfaction of wants—can be achieved the intermediate operations of production, exchange and distribution have to be gone through. Naturally therefore the study of Economics is divided into the four departments of production, exchange, distribution and con-

Subject matter
is welfare of
man.

Its four depart-
ments.

sumption of wealth. But this should always be kept in mind that this study is not of the activities of one single person but of the society in general. Thus Economics will not enquire how a certain per-

son produces, exchanges and consumes his wealth, but how is wealth produced in society by various classes of persons, how they exchange different

Looks at all questions for the society as a whole. kinds of things, and how the share of the total produce going to a person of any class is determined or in other words what determines the amount of earnings which various classes of persons get and lastly how those persons use or spend those earnings for satisfying their wants.

CHAPTER II.

WHAT IS WEALTH.

In the first chapter we have seen the great importance of wealth as a means of satisfying our wants. We should now enquire in detail about the conception of wealth, for in scientific enquiry it is always necessary to be as accurate in one's terminology as possible and so we should understand what we exactly mean by and include in the term wealth.

Wealth, we have said, is that which satisfies our wants. But there are things which do satisfy some of our most essential wants, but which we do not include in wealth. Thus when we compare the wealth of two persons we do not include the air they breathe or the water they drink in the wealth of either. They are equally available to both and so do not affect the comparative value of the wealth of any of them.

They are called free goods or goods given freely by nature to all men.

Free Goods. Goods is the term applied to all useful and desirable things or things which possess "utility." By the term "utility" is meant the power of satisfying our wants. It is also called value-in-use. Although free goods also possess utility but as we have not to work to get them so they cannot be the object of our economic activities. They are obtainable free and so do not require any price to be paid for them.

Wealth has exchange value and utility and is transferable. Wealth therefore is not that which is freely obtainable, but is that which is scarce and requires some labour and expense to procure. Such goods are called economic goods..

Clearly enough such a thing will carry a value, for every body who wants it will be willing to pay for it some price so as to escape the trouble and expense of finding it himself. Thus wealth carries an exchange value. It must be both useful and exchangeable.

There are other things also which are useful and carry an exchange value and still are not wealth. Thus the song of a singer or the attendance of a doctor satisfy wants and are useful, they also carry an exchange value for the singer and the doctor receive a payment for their work, but their exchange value finishes with such payment. The song of the singer or the attendance of the doctor having been once given cannot be transferred again by the receiver, for they have no existence as separate objects as such. They are exhausted in one act and so are not further exchangeable or transferable and cannot be counted as part of the wealth of the receiver. They are technically called services. Services though they do satisfy our wants, are not therefore included in the term "wealth*". So far

*Some writers consider services to be wealth as they possess utility and exchangeability. It is true that both wealth and services satisfy our wants, but there is a clear difference between the two. In the first place wealth plays a passive part in consumption, while services satisfy our wants by actively supplying their utilities to us. Secondly services expire with their production. If we calculate the wealth of any person we will not include the song he has heard, or the drama he has witnessed, or the services of his domestic servant in his wealth. This difference becomes clearer still when we consider capital and labour. Capital is that wealth which is used for producing further wealth or utilities. If services are wealth, than those services, or work done by man, which produces further wealth or utilities will be capital. But for such services or work

we find that "wealth" includes all material and transferable goods external to man. There may be internal goods such as abilities and technical skill. They also carry an exchange value in so far as they enable the possessor to acquire wealth in exchange for the exercise of those capacities, but what is exchanged is the exertion of those capacities and not the capacities themselves. Such exercise we have already termed above as services. The abilities and skill as such are non-transferable, and they are not wealth. But they are sometimes called "personal wealth."

But there are other non-material goods which are Immaterial wealth included in the term, "wealth". Thus

the term "labour" is used. If land, capital and labour all are taken merely as a classification of wealth from the view-point of production, then Economics becomes a study not of "man producing and consuming wealth" but of "wealth (including production -services or labour) producing wealth and man consuming it". This is manifestly wrong as it ignores the fundamental importance of conscious human activity in the production of wealth. Economics is on the one side the study of man and on the other is that of wealth. Man produces wealth either directly by himself or with the help of capital. Wealth is the result of his productive activities. Those activities themselves are not a kind of wealth. Labour and capital are two different categories and a similar difference exists between wealth and services. We may add "services" to wealth in our definition of Economics to make it complete, but should not ignore the characteristic difference between the two classes of things which satisfy our wants. We may, therefore, define wealth as "all goods possessing utility, exchange value and capable of being possessed and transferred to another." Such a conception will not only be scientifically accurate but is also more in accordance with the meaning which we usually attach to the term.

the good-will of a business is an example of such goods. This goodwill can be easily transferred to another and can be exchanged for value. The purchaser gets profits from the business done on account of this good-will. Other examples of such nonmaterial wealth are claims in action, *i. e.* a legal claim for money which a person may have against another, and the practice

of a doctor. Another kind of wealth is Representative wealth. "representative wealth" like stocks and shares, or bills of exchange and *hundies*.

They do not satisfy wants directly and so are not wealth but represent wealth existing elsewhere. Thus a stock represents a share in the property of the company which issues it.

What is wealth at one place or time may not be so at another. Thus ice may be very pleasant and valuable in summer and may not be so in winter or may be wealth in the tropics and will not be so in the arctic zone. Indeed there

may be occasions when free goods may become wealth and even services may take the form of wealth. Thus although the song of a singer is no wealth but when it is taken in a record of the

Service-wealth when stored. phonograph it becomes wealth for now that song can be exchanged for value and can be transferred to others. The lectures of a teacher when drawn up in the form of notes and published become wealth.

Free goods can take the characteristics of wealth in two cases. One is when although there is no dearth of their supply still it means some expense to procure them. Where water is flowing in

Free goods may become wealth when scarce. the rivers any body may go and take water from them, where water is not very abundant and something has to be paid for getting it, it becomes wealth. Or-

ordinarily soil is easily obtainable, but some persons make it a trade to dig soil from river banks, jungles and other places and sell it in cities.

The other case is that of national or communal or collective wealth. Thus the water of a river cannot be considered to form a part of any individual's wealth, but it is certainly a part of the wealth of the whole nation.

National or communal wealth. Its water is used for the purpose of irrigation and is paid for. The payment is made by the individual to the government which owns the river as a representative of the nation. Another case of national wealth is that of forests, which may not be the property of individuals but may form valuable national wealth. In a way even climate may be said to be a kind of national wealth in the case of health resorts. People from other places come there and spend large sums benefitting the inhabitants of the place who may be said to be owning that climatic wealth collectively and who may be considered as transferring the use of that climate to others for the benefit which they receive from the visit of those who come there to recoup their health. The case becomes clearer still if the government of the place realises some distinctive tax from the visitors.

National wealth may consist of not only free goods but also of acquired or economic goods such as railways, canals, public buildings and workshops and other materials owned by the government.

But such wealth is not national because of any inherent natural characteristics but simply because it happens to be owned by the nation's representative, the government. An individual also may own a railroad or a canal system, a workshop or a building. But in the case of certain free goods it is impossible for an individual to own them and such goods can be

wealth only in the form of national wealth. Such is the case of rivers which cannot be owned by an individual, but which form a very valuable national wealth. Not only may the water of the rivers be sold for irrigation purpose, but they can also be used as waterways and the state can realise an income by charging a fee for the license of navigating those waters.

Some economists speak of a variety of wealth called negative wealth. It consists of that kind of goods which not only confer a benefit but also impose an obligation on the owner e. g. copyright which not only is a source of income but entails the duty of keeping the book in print. If this is not done then the copyright may lapse under certain conditions.

We have seen above that services are not included in the term wealth. All activities which are directed towards the production and consumption of wealth are economic activities. Shall we consider activities, say, which the singer undertakes to cultivate the power of singing as economic activities? Evidently we should because although those activities do not directly produce wealth, but they do enable the singer to acquire wealth for the satisfaction of his wants. So the aim of all his activities is the same as that of other economic activities, namely the acquisition and consumption of wealth for the satisfaction of wants. The song itself is merely a stage in those activities which result ultimately in the procuring of wealth for the singer.

Moreover what we have to notice is that our wants are satisfied not only by wealth but by services also as they possess utility and so the real object of our economic activities is to acquire a number of utilities to satisfy our vari-

Activities for developing productive power are economic activities.

Real aim of production is utility not wealth.

ous wants. It is immaterial whether these utilities come to us through wealth or through services. If wealth did not possess those utilities it itself would not be wealth.

It has been shown above that formerly greater stress was laid on the acquisition of wealth but now it has come to be recognised that the real object of study is man and his economic welfare: wealth comes in only incidentally as the great means of that welfare. This change of the view point will acquire greater strength if we recognise that utilities and not wealth only are the means of satisfying our wants. The recognition of this fact is contained in the doctrine of the productivity of labour. There, as we shall see later, while formerly that labour was considered productive which produced wealth now all labour is considered productive which produces utilities, whether it produces wealth or not.

From this point of view our definition of Economics will have to be altered a little to become accurate and would stand thus. "Economics is a science of the principles underlying and governing the activities of man in society directed towards the production and consumption of utilities for the satisfaction of his wants."

But while scientifically this definition will be more accurate the previous one is more handy for in production, exchange, distribution, and consumption the use of the term wealth will be easy and convenient while the repeated use of utility will introduce a peculiarity of expression which may sometimes be confusing. Moreover wealth being tangible something lends itself more to the action of

Utility conforms better to the modern conception.

A new definition.

But the previous one is more convenient.

economic laws, whose action in its case is easily perceivable and measurable. In the following pages, therefore, the use of "wealth" in the examination of the economic phenomena will be adhered to; only we should remember the importance of utility possessed by both •wealth and services, as the power of satisfying wants, the aim and object of all economic activities.

BOOK II

CHAPTER III

Production—Land as a factor of production.

For the satisfaction of our wants the first necessity is the production of wealth. The Department of production. department of production may be divided for the convenience of discussion into four sections:— (1) factors of production (2) motive power, (3) methods of production, and (4) cost of production. In the first those elements which go to produce wealth will be considered. In the second the force that moves the instruments used in production is discussed and then the various methods by which wealth is produced will be explained while in the fourth the enquiry will be concerning the different elements which go towards making up the cost of production of an article.

The chief factors of production are three, namely land, labour and capital, while a fourth is now added as organisation. Sometimes Factors of production. they are stated to be five when besides organisation “enterprize” is taken as a fifth factor. We shall now proceed to consider them in detail.

LAND.

The most essential condition of all human Land what it activities, nay of human existence is, includes air, itself is land. In Economics land water sunshine does not mean merely the stretch above, and of ground but includes all other natural incidents connected with land which help in the production of wealth from land. The other factors

of production are labour, capital and organisation. The last two are artificial and the first is the human agent. Everything else which is neither artificial nor human but which helps in production is included in the term "land" provided it has the peculiarity of being fixed and limited.

It includes the air above and the minerals below, as also the quota of sunshine, fisheries rain, air and water. Fisheries also and mines. would be included in the term land. But although technically land includes all these, and an account of fisheries and mines should be given in the chapter on land, still in ordinary language even in economic discussion land does mean the stretch of ground, and when we speak of fisheries and mines we do use the words fisheries and mines. In this ordinary use of land the incidents of rain, air, sunshine, however, are always included.

Land is necessary for every kind of production. Its special use and the most prevalent and important one is for the cultivation of agricultural crops, fruits and vegetables. But even in the case of industrial production land is required to build factories. In commerce it is necessary for shops and godowns as well as for making lines of transportation. In the case of those who sell their services land is required, if not for anything else, at least, for their residence. It is true that land used for residence is used for satisfying a want or in consumption, but in economic activities production and consumption are mutually related. Thus such residence enables the person to produce further wealth by freeing him from all anxiety about his habitation, and so far as it increases the production by keeping his mind free from such an anxiety it may be said to be helping in production. For fisheries and mines land is as neces-

sary as it is for cultivation.

Thus we find that land is one of the most essential factors of all kinds of production.

Land natural & passive agent It is the natural but passive agent. It must be worked upon by man to produce. It does not produce itself but allows man to work upon it for producing wealth.

It is true that many fruits grow wild but they cannot be sufficient for supplying the needs of the whole human kind or of developed societies like the present ones. For supplying these needs man has to work to increase the means of subsistence. Man is the active agent while land from which he produces these means of subsistence is the passive agent. Without man's work this production would

not be there. But while this is true it should be recognised that man has not got so great a control over this production as he has over his own

motions, or as he has over a machine. With a machine he may go on working as long as he can, and can produce as much as he likes provided he is willing to devote the necessary time. But this is not the case when he produces from land. The poor

cultivator may have done all that he can in ploughing, manuring and using the best seeds and if the rains fail him then he may suffer. Or again if

the rainfall is too heavy then also the crops may be destroyed. Thus the production from land is to a very great extent dependent upon the natural elements. In the case of the mines the ore to be extracted is already fixed by nature and all that man can do is to bring it out.

Another peculiarity is that it is the most durable

thing in existence. Although land

Permanence. also may be destroyed by earthquakes or erosions of the sea or a river, but in comparison

with labour and moveable capital it is practically everlasting. Moreover if we remember that the sea and rivers themselves are land in economic language then it will be clear that any change in the configuration of dry land does not mean any change in the total area. Hence its possession confers a permanent advantage, a monopoly which is very valuable because of its being essential for all production and even life. This has led many persons to advocate that land should not be the property of individuals but should belong to the whole nation. This is not the place to examine this question, but the fact should undoubtedly be noted that the possession of land does confer a permanent advantage.

Further land is a natural gift. It is not artificially produced by man like capital. But this characteristic has made some writers identify land with natural gifts and even to substitute the former term with the latter. In fact all natural gifts, are not land. For example cattle, though natural gifts, are not land as they do not possess the characteristics of being fixed in situation and in quantity. They can be moved and increased in number even with the ingenuity of man. So they partake of the characteristics of capital. Then the natural capacities of a labourer are natural gifts but they cannot by any stretch of imagination be included in land. The word land is limited to those natural gifts which partake of its peculiarities e. g., sunshine, air, water, rain, and such others.

There is another very important difference between producing with machine and producing from land. Machines themselves may be increased to increase the production, but land cannot be increased. It is limited in quantity. The population may increase

and so the need for food may increase but the amount of land available to mankind cannot be increased. Whatever is wanted must be obtained from the same area of land. This leads to the "law of diminishing returns". The result is that the value of the produce of land increases with the lapse of time and the increase of population, for then there are many persons wanting it, and food becomes dear.

Another peculiarity of land is that it is fixed in situation and cannot be moved from place to place as a man may move, or as a machine may be moved. If there is not enough food in one country then the land of that country can neither be increased in quantity nor can land from other parts of the world be brought to that country so as to increase the available supply of food. If on the other hand there is not enough cloth in a country, though there is enough cotton grown there, then the machines to weave cloth can be made in any number and labourers to work those machines may be imported from other places. These two characteristics of being limited in quantity and fixed in situation give rise to the law of rent which we shall study in the department of distribution.

From this point of view while forests are land, cut trees are not as they become moveable; similarly ore extracted from mines can not be called land; they both become capital.

It has been said above that the most important use of land is for cultivation. Cultivation is of two kinds-extensive and intensive. When there is a plenty of

land and a scarcity of labour and capital the cultivation is extensive. By extensive cultivation is meant the application of the available capital and labour over as large an area of land as possible. This generally happens in the case of new countries, where the new settlers find extensive land to be occupied but do not possess much money, nor are their numbers so great as to supply sufficient labour, and so they have to depend on their own labour or those of their sons and brothers. Neighbours also are few and do not live so near as they do now ; then they also work under the same difficulty. Naturally therefore he likes to bring as much land under cultivation as he can with his limited supply of labour and capital. He does not plough very deep but ploughs as far as possible. He sows the seed dispersed over the whole land and his plants have the advantage of utilizing the powers of a large area of land and so are sturdy and fruitful. This is extensive cultivation.

But as the population increases the demand for food is greater while all the available land is taken up. Then it becomes necessary to increase the supply from the same area of land. When the available land in a locality is already under extensive cultivation and still the need of food is not met fully the only way is to increase the agricultural produce of the same land, because land being limited in quantity cannot be multiplied, nor can the waste lands and jungles lying at a distance be transported to that locality for land cannot be moved. Consequently the cultivator now ploughs deep. The natural powers of the soil which were lying below the surface now come up and help in the growth of plants. He now sows the seeds near each other. Though the seeds have not as large an area to draw from as before but they

draw upon the powers of the soil to a greater depth. Thus a larger amount of labour and capital is spent over the same area. From the word capital we may for the time being understand money : the scientific definition will be discussed in a later chapter.

Intensive cultivation. When a large amount of labour and capital is spent over the same area the cultivation becomes 'intensive'.

The degree of intensity increases with the increase of the labour and capital spent in the cultivation of the area. Sometimes lands are left fallow for a season, or vacant after a crop, so that the land may recoup its powers from rain, sunshine and air, and may become ready for the next crop. But as the knowledge of intensive cultivation advanced the cultivators discovered another method of effecting the same purpose without losing the advantage of reaping a second crop in the year from the same land. This method is the "rotation of crops".

Rotation of crops. that wheat is raised in one crop then it may be found by experience that if rye is raised after it and then wheat again then both the rye and wheat crops will be good. This depends upon the principle that one kind of crop uses up particular salts from the earth and if a crop can be found which uses the remaining salts, then the second crop also will be good, for although the first crop has used up the powers of the soil, but not those powers which are required for the second crop. And while the second crop is being raised the powers required for the first crop may go on collecting in the soil, and the soil may again be ready for the first crop by the time the second crop is cut. The same thing will happen for the second crop while the first crop is being raised. This action would be further helped if the leaves and branches of the crops supply a manure to the land

suitable for the other crop. In this way the advantage of leaving fallow are obtained without foregoing the advantage of two crops in the year. Sometimes even more than two crops are raised.

But with the increase in the intensity of the cultivation the cost of the produce of each new instalment becomes greater than before, and one will increase the production only so far as he finds that the prevailing price in the market will compensate him. Where the cost begins to be greater he will stop. The point of the last instalment, which he produced at a point where the cost of production was just compensated by the price obtained for the produce, is called the point of marginal cultivation. If the price increases the margin of cultivation will advance because now even greater cost can be compensated. If the price decreases the margin will recede as now smaller costs only can be compensated, and so the cultivator will give up the more costly production which he produced at the previous margin.

This margin may be determined at a certain point in the cultivation of the same land : or different plots of land may be compared with each other so that one of them is on the margin. That land which is not rich in chemical powers will produce less and at greater cost than a more fertile land. That land in which the cost of production is just compensated by the produce is said to be on the margin.

Another way of increasing the productivity of soil is by making improvements. The chief defects in a land may be its lack of chemical powers, or the land may be very loose so that the plants cannot fix the roots and the water goes

Margin of
cultivation.

For the same
land.

Land on the
margin.

Improvements,
manuring, irri-
gation and
drainage.

down deep and is not available for plants whose roots do not go down very deep, or the land may be dry and the rainfall may be insufficient, or again the land may be marshy or low with heavy rainfall. The first defect is cured by the application of manure. The second and third are remedied by the application of water or irrigation. By applying plenty of water for a sufficiently long period of time even a loose soil may be improved. Water is also necessary for raising crops and where rainfall is deficient wells may be dug, or canals and tanks may be built. A good system of drainage is sometimes necessary to drain off the excess of water. Further this depends to a great extent on the kind of crop raised. Thus tea thrives at places where the rainfall is good but it does not stay in the roots for a long time, and so tea grows well on mountain slopes. On the other hand rice and jute require a great deal of water, and the beds are filled with water to grow these. Other ways of improvements are fencing to protect the crops from wild beasts, putting up farm buildings, use of improved instruments, and planting of trees.

In India the	cultivator is very skilful in judging the water and the weather and the proper rotation of crops, but he does not apply chemical manure. He uses
Condition in India.	cowdung and other refuse for this purpose and is generally conservative in his methods. His agricultural implements are of age old types, and very inefficient in comparison with modern agricultural machines now available. The reason for the back-
Primitive instruments, lack of education, financial difficulties, and small holdings,	wardness is firstly lack of education and secondly to a greater extent his financial disabilities and chronic indebtedness. His fields are not large and so do not admit of the application

of valuable machines. This can be done only where farms are large enough to supply work to the machines. This can be arranged by several cultivators combining to purchase a machine and it is easily done where there is a society of the

cultivators like a co-operative society.
 Remedies-
 Cooperation. Still to induce him to adopt such im-

proved means they have to be demonstrated before him to convince him of their utility. The other difficulty is his heavy indebtedness. If one crop fails he has to resort to the village "sahukar," and once in the hands of the sahukar it becomes difficult to get out. Often social customs force an expenditure which binds him to the sahukar for long. It is necessary to train the cultivator in the

habits of thrift, to supply him with
 Value of a long money on low rates of interest and
 lease and stable tenure. to give him a security in his right to

hold his land, so that he may be certain of reaping the advantage of the improvements he makes. If he makes a well and then is turned out by the landlord then his expense will be lost. This is tried to be secured by the various tenancy laws, and the other objects are provided for by the cooperative movement. For demonstrating the improved methods of cultivation Government agricultural farms have been started.

It has been said above that an increase of population and the resulting demand for
 The law of in- food leads to the change from extensive
 creasing returns. sive to intensive cultivation. In this change chemical powers of the soil may be brought out which were not present on the surface, and this may give an increased yield, i. e., more crops than the amount proportionate to the increase of capital and labour applied to a particular area of land. When the produce is thus in excess of the amount proportion-

ate to the amount of labour and capital employed it is said to be following the law of "increasing returns". One unit of labour and one unit of capital i.e. labour and capital generally employed in one act is called a dose of labour and capital. When these doses of labour and capital are further increased the return will not always be in proportion to the increase, because when the powers of the soil of lower layers have been brought forth and have already begun to act any additional application of labour and capital does not bring out further new powers, but only uses those powers, which have already come out, to a greater extent. Therefore the return to this additional application of labour and capital cannot

The law of constant returns. be in an increasing proportion. It will be only proportionate to the amount of labour and capital used.

When the produce raised is thus in proportion to the doses of labour and capital employed it is said to be following the law of "constant returns".

But this condition cannot remain for long, because when once the full powers of the soil have come into play and you still go on increasing the doses of labour and capital the resulting produce for the

later applications of the doses will be smaller than it was for the earlier doses. When this begins to happen the produce is said to be following the law of "diminishing returns". Even if we suppose the chemical powers of the soil to go on increasing the amount of rain and sunshine falling upon a particular area will remain the same whether we apply a small number, of doses of labour and capital or a large number because the area of the land will remain the same. So the same rain and sunshine cannot help the later application of the doses in the same proportion as they did the earlier ones. In agriculture there-

fore the time must come sooner or later when the produce begins to follow the law of diminishing returns, because the area of land and its quota of air, rain, sunshine, and of the chemical powers is fixed naturally. The last may be increased by chemical manure, the water also may be supplied by irrigation from wells or canals—although this also cannot be done beyond a limit, for there will be a limit to the water which a particular area of land can hold without doing damage to crops, but still there will remain the atmospheric conditions, and these also are important. Sunshine gives energy and heat : from the atmosphere the land takes nitrogen. We find thus that the dependence of land on the natural elements makes it inevitable for the law of diminishing returns to begin acting sooner or later ; and this is so not merely in agriculture but in other kinds of production as well which specially depend upon land, such as fisheries and mines. As the mines become deeper it may at first happen that the lower layers are richer than the surface ones, and so may for a time give increasing returns, but as these richer layers also begin to be worked and the depth goes on increasing the returns may change from increasing to constant and ultimately to diminishing returns. With increasing depth the cost of bringing out the mineral upto the surface will increase, while the amount brought out per unit of time will be nearly the same or may even be smaller. Evidently the returns will be diminishing in proportion, to the cost they will not increase in proportion to the increase of the doses of labour and capital. Similarly in the case of fisheries the first attempts will be more successful than the continued application of the doses for the area exploited.

Due to dependence on nature.

Applies to mines.

Also to fisheries and the approximate number of and buildings. fishes to that area is limited. It is true that fishes from other areas may come, but they may as well run away on the scare being understood by them. With a decrease in their number it will become increasingly difficult and costly to catch them. Similarly the return from houses when intensively built i.e., built to several stories, follows the law of diminishing returns. The cost of the first story including the foundations is greater than that of the second story, but thereafter the cost of the successive upper stories increases on account of the time and cost taken in passing materials to the higher floors being greater than in the case of the lower ones. On the other hand the rent which can be realised for the upper flats is smaller than that of the lower ones. Higher cost and lower rent realised means diminishing returns. If a person opens a shop on the upper flats his custom can not be so great as at the lower ones, while he will have to incur the extra cost of maintaining a lift. His profits, therefore, will be smaller than those of the lower rentee and so he pays a smaller rent.

The conditions are different in the case of machines. There if we increase the number of machines the produce will increase in proportion to the increase of the machines, and will be even greater in proportion to the increase, because the same supervising staff can look after the second machine also and so its cost will not fall on the second machine's production. In the case of an individual machine, it is true, a point may come when it may begin to give a diminishing return. If you go on working a machine continuously for twenty-four hours and for days together the friction will increase and the machine

Different in case of machines as machines can be increased and improved indefinitely.

will not turn out the same amount of work for later periods of time as it did for the earlier ones. But when such a point is reached the owner will not continue to work that machine, he will rather increase the number of machines. He cannot do the same thing in the case of land for the area of land is fixed. So even if the land begins to give diminishing returns he must go on working that land if he wants a greater amount of produce. The principle is found to be that in production which depends upon natural elements to any appreciable extent the law of diminishing returns acts sooner or later, while in productions where the mind of man can invent, arrange and organise the law of diminishing returns can be kept in abeyance indefinitely and often the law of increasing returns prevails.

In the case of articles or commodities which follow the law of diminishing returns the cost per article or commodity increases as production increases, because the cost in labour and capital is greater for the later instalment; while the value of those commodities which follow the law of increasing returns is less as production increases for its cost is smaller for the later amounts of the increase. This is why while the agricultural products go on becoming dearer the

Why agricultural goods are dearer and manufactured ones are cheaper. machine made goods become cheaper. This law of diminishing returns may be kept in check for sometime by improvements in the method of cultivation in the case of agricultural products also but as the area of cultivation remains the same it must begin to act sooner or later. It should be noticed that these laws of returns are based on a physical argument and should be rather a part of some physical science, but they relate to production of wealth and so are economic, but still they depend upon physical data which Economics borrows from

the physical sciences. All that Economics is concerned with is the effect of human activities working on and under these physical conditions.

This power of land to produce a certain quantity per unit of labour and capital is termed its efficiency, and is measured by the quantity produced.

CHAPTER IV.

LABOUR.

Just as land has a meaning in Economics a little different from its ordinary use so has labour also, but this technical meaning is not very much different from the ordinary one. All that we have to remember is that in Economics the word "labour" is used only for the work of man and not for the work of animals or machines. In ordinary language animals also are said to labour but that is not so in Economics. Here animals are included in wealth and capital, Economics is on the one hand a study of the activities of man which he undertakes to satisfy his wants, and on the other side is the study of wealth which is the means of satisfying his wants. Thus there are the two main divisions man and wealth. Man working is represented by labour, and all else is wealth. But of wealth used as a factor of production there are two very clear divisions, immoveable and moveable ; the latter kind is not fixed, immoveable, and limited as land, and comes under the category of capital. Although so far as production is considered land and capital both are passive and non-living actors of production, and both are varieties of wealth, but their characteristics are so diametrically opposite, that they are classed in separate categories.

In the work of man also all work is not included in the term labour. Work which is pleasant in its very process is not labour, thus playing football is not labour, nor is taking food, or reading a story. But where the work is not done for its own sake but is done for the purpose of producing something else

which may satisfy his wants, or in other words, work which is in the nature of an effort to produce something or procure something capable of satisfying his wants is labour. Labour is toil and as such involves the pain of forced work. If the object could be gained without that work, then that work would not be undertaken by the labourer. It is possible that by habit this labour also may lose its unpleasantness and may also become pleasant, nay in some cases it may even become necessary. There have been cases when a person accustomed to hard work feels rather uncomfortable if left without work. This is nature's trick to make things tolerable, but it is none the less true that in most cases toil would not be undertaken if the wealth for satisfying one's wants were available without such toil. In such a case persons who would find it uncomfortable to be idle would probably apply their energies in activities which would themselves be pleasurable to them without any expectation of ulterior gain. Ordinarily

Margin of toil. a man would work only as much as is necessary. Suppose a man works for 8 hours a day. Now in the first hour he would work for any return for he wants work, and has fresh capacity for work. But his willingness for the second hour's work will not be so great because he has already got something as a return of his first hour's work, and his want is not so great, while his unwillingness will be greater because he has undergone one hour's toil already. Therefore he will demand more for the second hour's work than he did for the first hour's before he would undertake the trouble of working for another hour. This will be increasingly so for the subsequent hours till he reaches a point where the unpleasantness of labour will be so great that he will not work for any reward. The point just above this is the margin of toil, i.e.

the point at which the reward offered is sufficiently great just to compensate for the most unpleasant toil which the labourer is willing to undertake. Beyond this point he will not work.

It is clear, therefore, that in labour besides the
 Factor of time. • toil or effort of the labourer the period of time is very important. With the passing of time unpleasantness of toil or labour increases or effort becomes greater. Labour is an effort which a labourer cannot go on exerting for any length of time like a machine. There comes a time beyond which he will not work for any reward whatever. Ordinarily also he cannot work for all the twenty four hours or for the whole year round, and so a limited period of time must be sufficient to give him a reward enough to meet his needs or satisfy his wants. Further this reward also must be given to him at short intervals, and should not be accumulated, because the labourer has got to take food in the meantime, otherwise he will not be able to work.

The case is different with a machine. A machine may work on continuously, and its reward also may be kept accumulating. The reason is that labour is living while the machine is non-living. Here we must make another point clear before we proceed further, that the word labour, as used in Economics, includes the labourer as well as the labour of the labourer, and the meaning is to be understood from the context. Where the qualities of labour as man, the source of labour, are discussed the labourer is meant by the term, and where the actual work for producing wealth is referred to then labour has the ordinary meaning of the work of man. Thus here labour means the labourer, because labour in the meaning of work cannot be living. The labourer being living cannot be

treated like the non-living agents of production, land and capital. The effect of being living and conscious is, in the first place, that the labourer cannot go on working continuously, and his reward must be given to him at short intervals, and secondly its efficiency and mobility are determined not only by the reward or other physical factors but also by the psychological ones. Education and training mean much for a labourer. Thirdly labourer being living has the power of imagination and invention which may be termed resourcefulness. This power cannot be present in non-living things like land and capital. A machine will work only in its set way, but a labourer may change his method of work so as to make it more fruitful and convenient. If a hitch occurs his work is not likely to be stopped and he will try to get over the difficulty. In the case of the machine the hitch will mean a dead stop.

Being living and conscious labour is the only active agent of all the agents or factors of production. A machine may do work but it will do so only when attended by man. In case of disorder the machine cannot put itself in order and begin to work again, it will be a man who will do so. Electricity, steam, may all move machines but only when directed by man. Without man's labour production would be impossible. He is the primary cause of production; all the others are merely helps in the process, though very necessary ones.

Labourer is not only the primary and active factor of production but it is also the object of wealth production. He is not merely the source but also the aim of production. This again is a peculiarity which is not present in land or capital, for they are merely the means of production. This peculiarity strengthens the

consideration that the conditions applying to the work of the other factors cannot be applied to labour. Since labour is also the object of production there is no meaning in exerting labour so much as to make it unpleasant and painful. Work is done to satisfy human wants and not for its own sake, and so care must be taken that the work is not excessive. Any system of social organisation which unduly taxes the labourer shows a disregard of this scientific truth, and as such has got in it the elements of inequilibrium. The labour problems or the demand of the labouring classes for better conditions of life and work are a result.

We have seen that labourer being living has to be fed even during the period of his work to enable him to work. The same result follows from the fact that labour is perishable. It expires the moment it is produced and is changed into the form of work which it does. One cannot store his labour to be used at some future time. Whenever he wants to work he must work with fresh labour. He may store the result of his labour, but if he has not the materials to make additional articles for storing then he cannot preserve the labour itself. The results of his labour also can be stored only when they are in excess of his requirements, otherwise he must work every day, and as his wants also are recurring wants of food and clothing, he cannot live without working. He cannot say "let me take rest today I will do two days' work tomorrow". And as there is a limit to his labour beyond which he will not like to work, he cannot say also that let me do two days' work today and I will not do anything tomorrow. Excessive work on one day will decrease his capacity for work the next day, and no part of his previous day's work can be restored as labour to be used the next day.

Moreover if he works too hard, his work will not be so efficient, and the result will not be commensurate with the toil undergone by him. If one does not work on one day that also will not enable him to work very much longer the next day. He must therefore work from day to day. The result is that it is difficult for a labourer to have a reserve. It is only when he begins to have a little capital saved from his daily earnings that his reserve of goods increases. Such reserve can be in the form of capital only and not in that of labour, for labour is perishable.

Another very great peculiarity is that the labourer must deliver his labour personally wherever he wants his labour to be applied. He cannot store his labour in an accumulator and send it by post. And as he is also living and conscious, so he may not like the particular surroundings in which his labour is wanted and is to be applied. In that case his labour will not work for he will not go there. It is different in the case of land and capital. They do not require that the conditions of production be pleasant, they may be applied in whatever process one likes. A labourer may not like to leave his home, and so may not be able to take advantage of better wages at a place where the labourers are scarce, but capital can be sent to any place as it has got no feelings. Therefore as in labouring the labourer himself has to be present, so his conditions of work must be congenial.

Labour is mainly of two kinds physical or muscular and mental. Ordinarily nowadays only the manual workers are included in the term labour while the term liberal professions is reserved for those who do mental work. But in principle there is no difference between

the two kinds. Both are exertions or toil of man, and both are intended to satisfy the wants of others while procuring for the workers themselves the means of satisfying their own wants. In reality there is no labour which is entirely mental or entirely physical.* Even a coolie does exert his mind a little in thinking out a proper way to lift a load, while the mental worker has to translate the results of his mental working into physical action. The difference is only of degree. In one physical labour predominates and in the other the mental factor counts most. But at the present time a class of manual labourers has arisen as opposed to the capitalists or owners of capital, and often "labour" is used to indicate this class of labourers only, while the liberal professions are considered to form the middle and the higher classes of society. This may be so when the problems of the labour class are considered, but we should be perfectly clear in our mind that scientifically there is no essential difference between the two classes of labour, although there is a great difference between the actual work done by the two classes, as well as in their habits and standards of life due to a greater mental development in the liberal classes. That this difference is merely one of degree is shown also by the existence of a third class between these two, the artisan class, whose work, habits and standards of life are all intermediate between the two. As examples of physical labour may be cited the manual labourers, the coolies or transport workers and domestic servants.

Mental labour may be divided into artistic and intellectual. In the former would be included those professions who appeal to and satisfy our aesthetic feelings, and are emotionally pleasant, while the latter would include those in which the work is more or less

purely intellectual. Painting, music, are examples of the artistic, and writing and teaching are those of the intellectual labour. Both are necessary for human welfare and development. Man as a living being has not merely physical wants but has intellectual and emotional wants as well, and these also have to be satisfied. Even the uninstructed and uneducated will have his ditties and ballads, nay also grotesque drawings and pictures. Indeed sometimes the satisfaction of our physical wants even requires mental labour; such is the case in medicine. Even for regulating our diet and selecting our food mental labour is necessary. Moreover the development of the intellectual and the aesthetic powers leads to a progress of civilization. Without these man would be a brute. It may be objected that the cost of maintaining these higher classes or this so called progress of civilization is too great and is grinding down the lower classes, who do not get much benefit from this advance of civilization. There is some truth in the first part of this statement, and this condition is due to the defective organisation of modern society, but it is not true that the lower classes do not partake in the general amenities of the society; they can not remain unaffected by the contact of the higher classes. They do get many occasions of sharing this general progress, and the increase of educational facilities and news-communication increases the chance of all taking part in the advance of society. As has been shown above, both physical and mental labour are necessary for the satisfaction of human wants.

There is an old theory of productivity of labour connected with the old emphasis on wealth. It was thought that only that labour is productive which produces wealth like that of a cultivator or an

Productivity of labour-old view-
production of
wealth.

artisan. In the case of transport workers, who carried articles from place to place, or merchants who simply stored commodities to sell them at a later time, it was thought that their labour was not productive as it produced nothing, and so they were considered to be merely parasites who were paid by society without its deriving any advantage from them. But this view is now changed. Now it is

Modern view-
production of
utilities.

realised that the production of wealth is not the end and aim of everything. The aim of economic activities is the satisfaction of human wants, and those activities are productive which do satisfy such wants. Wants are satisfied not by any particular commodity or article, but by its utility or its power of satisfying wants. We have seen in the chapter of wealth that the same thing may be wealth at one place and time and may not be so at another, and so the main thing is utility. If, therefore, the labours of the merchant and the carrier does add any utility to the articles then they are productive, and if they do not then they are not productive. This is the proper test. Thus one thing may be so abundant at a particular place that nobody cares for it and it lies about the streets. If a person carries it to a place where it is scarce and so is highly valued, he does make it more useful by his action, and his labour cannot be said to be unproductive. Similarly if a merchant stores a thing at a time when it is not wanted so much, and thus saves it from destruction, and sells it when it is wanted more, he does make it more useful, and without his labour these additional utilities would not have been acquired. In the same way services although not included in wealth do satisfy wants and so possess utility. The labour spent in those services is not unproductive. The services of a domestic servant are often as necessary to some persons

as consumable commodities. They produce those utilities which satisfy our wants for their attendance upon us. Thus the test of the productivity of labour is the production not of wealth but of utilities. This productivity is increased by the

Productivity increased by use of instruments. A man producing with hand cannot produce so much as one working with a machine can. Further all those things which increase efficiency of labour increase the productivity of labour.

Just as in the case of land the power of land to produce certain quantity of goods on the application of a certain amount of labour and capital per unit of area measures its efficiency, similarly the efficiency of labour is measured by the amount of work which a labourer turns out in a given period of time. The more the amount of work he does the greater is his efficiency, provided the quality of the work done is as good as before, or as that of another labourer's with whom the work is being compared. The return for labour also will be according to the work done. The more efficient labourers will get more than the less efficient ones. It is, therefore, material to know the factors which increase or decrease the efficiency of labour. The factors which increase

How increased-Physical factors. the efficiency of labour are both physical and psychological and even moral. The most important thing is that the labourer should have a sound, healthy, strong body, and all those things which improve his health and physique will make him more efficient, while those things which injure his health and strength will necessarily make him less efficient than before. The things necessary for health and strength are good nutritive food, good shelter, good clothing and open air work.

Thus a man is protected from ailments and keeps his strength. If his work is not an open air one, but is in a congested stuffy room naturally his health will be affected. This is why workers in villages are sturdy and strong in comparison with those of the town.

But physical health and strength are not enough. Labour is the living and the active factor of production, and so its psychological and moral condition also becomes important. If a person is very healthy and strong but is a fool, he will be less efficient than a person who is more resourceful. A man who is resourceful, whose mind is adaptable, so that he easily suits himself to different kinds of works and situations, and who is of strong will so that he can be trusted to do a work with energy and perseverance, will be more efficient than one who has not got these qualities. There are certain conditions which tend to develop these qualities further. They are freedom, change and hopefulness. These conditions increase his efficiency directly also. Pessimism makes a man less efficient while hopefulness increases his productive powers. Pessimism acts as a check, as a damper over his enthusiasm, and lack of enthusiasm does not allow the full powers of a man to be employed in a work, while enthusiasm gives a freshness and a new energy. This is helped by change. Change of surroundings is very important for the proper development of one's powers. Monotony of work and life decreases interest in the work, and change by renewing this interest enables a person to act more energetically. Freedom of life also makes a man self-reliant and resourceful, while dependence on others destroys his power of initiative, and his efficiency as the active agent of production is reduced, for only that active agent can be efficient who can initiate

useful activities. A labourer's efficiency may be further increased artificially by proper education and instruction and by developing his technical skill. Even where merely non-technical education is received the educated worker does things in a more methodical systematic and neat way than an uneducated one.

A man's efficiency is affected not only by his physical and psychological condition, but also by his moral equipment. Moral factors. Thus a person who has a high sense of his duty and is diligent is likely to do more and better work than a person who is devoid of these qualities. One who is truthful and honest will be more trustworthy and will work more energetically than a dishonest person. Generally a person who is of a strong moral character will be more capable of sustained work than a man of loose habits. These moral qualities do not affect his efficiency directly only in this way, but they affect also his psychological and physical qualities. A man of sound character will be of a strong will and strong body. He will not be easily daunted by difficulties and will be resourceful. Man is a living being and the connection between the body and the mind is so intimate that each affects the other. A strong mind tends to develop a strong body, and a healthy body means a healthy mind. Thus for efficiency proper condition of both the mind and the body is necessary, and any system which disregards the mental and moral health of the labourer commits a serious mistake, and does help to reduce the efficiency of labour. Hence it is very important to provide healthy intellectual and moral conditions of life for the workers, as well as to keep an element of change in their life.

Just as certain things increase the efficiency of labour the opposite conditions decrease it.

Efficiency decreased by. Insufficient food means a weak body and even a diseased body. Conditions of sanitation also mean much. Bad sanitation provides a breeding ground for diseases while good sanitary conditions help in keeping healthy bodies. Sometimes the climate is enervating as is the case in the tropics. Pecuniary difficulties often do not allow a person to lead a restful and healthy life. Even if he is not so bad off as to have to stint himself to a great extent the constant anxiety damps his enthusiasm. This is a condition which in the present organisation of society is very commonly complained of. Another great cause of the decrease of efficiency is overwork. We have seen that a labourer cannot be worked like a machine continuously for any length of time, as toil means a nervous strain, and to this strain there is a physical limit. Overstraining the nerves means weakening them and making them less efficient for further work. Not only overwork but even monotony of work and lack of recreation affect efficiency adversely. Holidays and means of recreation are necessary to refresh the mind and the body and prepare them for a fresh effort. They provide a change which is so necessary to maintain efficiency. Life in towns, in congested areas, with its many distractions and temptations is harmful in comparison with the open air life of the villages. It is less healthy than the life of the country. Moreover, it sometimes throws a person into immoral society, and develops the habits of drinking, gambling and other injurious tendencies. All of these decrease his efficiency, for we have seen that strong moral character is as helpful in increasing efficiency as a good healthy body. In the towns, however, there are greater opportunities of education and instruction. These also are very necessary for a labourer to become an efficient producer.

The affect of these factors in increasing and decreasing efficiency goes on accumulating. Thus if a person gets insufficient food, then in the beginning he will feel it as insufficient, but later on he will get accustomed to it, and the decrease in the efficiency will tend to become permanent. With decreased efficiency he will get even less than before and this will go on cumulatively. The children of weak parents will be weak and will be less efficient, and thus a whole nation goes on deteriorating. The labouring classes form the majority of the masses and their prosperous condition is necessary for the strength of a nation. The index of their prosperity is their general health, birth rate, death rate and the average duration of life. Where the average duration of life and the birth rate are high, the death rate is small, and the country is free from epidemics, that country is truly prosperous. None of these conditions obtain in India in spite of the fact that treasure in the form of silver and gold is said to be continually absorbed by the country. The epidemics take a heavy toll of life year after year, the average duration of life and birth rate are low in comparison with other countries while the death rate is higher. There is a chronic condition of famine, but as the people are becoming accustomed to a lower sustenance than before, they do not complain of scarcity, although the grain be selling very dear. This is a practical example of the cumulative effect described above.

One way of getting more wages is the increase of the power of mobility. If labourers are paid more in a place A, than they are in another place B, then if they can move from B to A they can get more wages than they used to do. Or if one profession is more profitable than another,

Kinds-Geographical, vertical, and horizontal mobility. then the power to change the profession improves the prospects of the labourer. There are three kinds of mobility. The power of moving are from one profession to another profession, but in the same grade, is technically called the horizontal mobility or mobility in the same plane, while the power of moving from one place to another is termed geographical mobility or mobility in space, and mobility from a lower grade to a higher one or vice versa is called vertical mobility, e. g. an artisan becoming a clerk or a supervising foreman or a manager. The mobility of labour is not perfect as the labourer is not a passive non-living agent, and cannot be packed off to any place. He is a living being and so must be willing to move as well as should have the capacity to move. These conditions may vary.

Vertical and horizontal mobility can be increased by good training and education, so that he may be capable of adapting himself to a new profession, may learn it easily, and may even advance to higher grades. Education and training also help in increasing the geographical mobility, for they liberate the mind, and eliminate those superstitions and conservative ideas and habits which stand in the way of such mobility. But a necessary requisite of mobility of either kind is the possession of extensive information, for without it the labourer will not know where to move so as to get larger wages, nor will he be able to realise that some other occupation within his reach is more profitable than the one he is engaged in. A development of communications helps in increasing geographical mobility, for then the ease with which one may return home whenever he likes induces him to move out and go to places where he

can earn more. Moreover developed communications enable a wide diffusion of correct news and information.

There are many things which stand in the way of mobility. If one is not well trained or educated or has not got sufficient information he cannot change from one occupation to another, nor is there any great likelihood of his going out. Even if he has the willingness to move and possesses full information, still poverty may stand in his way, and he may not have the means to make the change. Where this difficulty does not exist the character of the occupation to which change is proposed, or superstitious and home associations may prevent a man from moving. The labourer must deliver his labour personally and so the work, the place, and the surroundings where the labour is delivered must be congenial to the labourer. If the new profession is unpleasant no change will be made. If there is some superstitious fear attaching to the place where the labour is to be done the work will not be done. Some persons consider it inauspicious and undesirable to leave their native place, for such mobility is out of question. Even for those who are not superstitious the home associations may be too strong to allow them to move. New surroundings are usually not inviting. One has to establish himself anew at the place, and make new friends leaving all the comfortable arrangements of his home and his life-long friends. This is specially so with sentimental persons and is not so strong with those who have business habits. Certain social customs restrict the mobility of labour. This is the case with the caste system of India. The caste restrictions about food and marriage tend to keep a person to his native land, while the caste rules about a

Mobility decreased by.

Caste restrictions.

person of one caste following the same profession stand in the way of that person changing to another more profitable occupation. Originally it was of great use as it restricted the number of persons engaged in any one occupation, and thus prevented the overcrowding of the professions; but now the conditions are changed, and in the present rush for wealth those who work under these restrictions are prevented from increasing their economic prosperity, and the total national income, or the products of the labour of the whole nation, is not so great as it would be if every one could follow the most profitable profession suited to his capacities and training. If a profession becomes overcrowded its earnings will decrease, and the rush to that profession will also decrease and will be diverted to other occupations. Thus a natural equilibrium will tend to be established. Moreover, it is the lower classes only who suffer from these restrictions, especially those who are called untouchables. Thus a sweeper will not be able to be a successful cloth merchant as nobody will buy cloth from him, nor will he be able to sell provisions for the same reason, although he may be living a very clean life. Thus he is per force obliged to remain in his own profession and is deprived of all chance of bettering his prospects on account of the caste prejudice of the higher classes. Those castes which do not suffer from this restriction in following professions are taking to any profession which they find profitable. The railway has broken down the prejudices to geographical movement greatly. The existence of these social restrictions and their gradual breaking up under the influence of education and development of communications illustrates very well the principles explained above.

Efficiency of a worker is further increased by another fact which we have not so far considered,

Economic 4.

and that is the division of labour or allotting different parts of a work to different persons rather than make one person perform all the actions himself. This division of labour may have different forms under different conditions. Thus there is a division of labour in the family. The mistress of the house looks to the home management and the master concerns himself with earning the means of livelihood. Then there is a division of labour by professions or callings. Our wants are so many that we cannot ourselves produce all the things required to satisfy those wants, and so different persons concern themselves with different works, and then exchange their products for the products of others. This is specialisation by families, *i. e.* certain families follow particular professions. It may further happen that families engaged in one kind of production may collect in one locality, while others following another profession may concentrate in another, and in this way specialisation by localities may occur. This may extend even to international dealings. Some nations may produce one kind of goods while another may produce other kinds. But the most important form is that in which the same work is divided into several parts. Thus in making matches one may be engaged in cutting blocks, another in making chips, a third in dipping those chips into the solution. Another party of workers may be engaged in making the different parts of the match box, and then different persons may be engaged in putting the chips into the boxes, and others still in labelling them. and so on. It is this kind of the division of labour which is the most important to consider as it in-

Division of labour.

Forms.

By callings.

By localities.

Division by complete and in-complete processes.

creases production immensely. Properly speaking this subject belongs to the heading "Methods of production", but as it deals purely with labour and has a bearing on the efficiency of labour we have taken it up here. Division of work into parts may again be by "complete processes" and by "incomplete processes." For instance take cloth production. A division of work into ginning cotton, spinning thread, weaving cloth, and dyeing is division by complete processes, while taking any of these branches and splitting it up into several processes, none of which by itself produces a complete part, and all of which combine to make it, is said to be division by incomplete processes. For instance cutting wood into blocks, these into chips, then fashioning these chips, and dipping them in the solution is division by incomplete processes, and this last kind is one of the most important for modern industry.

<p>Conditions necessary.</p>	<p>labour, as in this case one labourer does only one kind of work, and so.</p>
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saves much time, which was previously spent in changing from one operation to another when only one person produced the whole article. When the quantity of the produce is increased it is necessary that it should be sold. If it is not sold but lies on the hands of the producer, it is useless to undertake the trouble and expense of producing it. Therefore, the need for the goods should be so great as to absorb the whole produce and only then will it be profitable to produce it in increasing quantities by adopting division of labour. So the first condition of a successful adoption of the division of labour is a large market for the product, so that the increased quantity of the product may be absorbed and the workers may be kept occupied.

The process which each labour has to perform is very small, and it should be repeated for the whole day to keep the labour busy. This is possible only when the demand for the goods produced is very great. If the labourer is not kept busy, there will be a loss, as full wages will have to be paid for small work.

Another very important condition is the divisibility of the work. If the work itself is not divisible, there can be no division of labour, e. g., in sawing timber by hand labour there can be no division as the one operation of sawing completes the work. A third condition is that there should be some person to coordinate the work of the labourers so as to get the whole article produced. Take the case of match manufacture. If the box making section produces one thousand boxes per day, which the sticks produced are enough for two thousand boxes, then half the quantity of sticks will lie about and be wasted or the work in the sticks will have to be stopped. Some person must look to this coordination. He is the employer who pays wages to the workers and sells the articles himself. When these conditions are fulfilled and division of labour is adopted many advantages result therefrom.

The whole complicated work of producing an article is divided into simple operations. This on the one hand makes it possible to invent a machine to perform the simple operation, and the introduction of the machine further increases production. On the other hand when a worker performs only one operation again and again his skill in performing that operation becomes great, and he produces more and better work than he does when he has to perform many different operations. It also saves time for when one man produces the whole thing, he has to perform all the operations

necessary to produce the whole article, and in changing from one operation to another much time is lost. But here this time is spent in repeating the same operation for a much larger number of articles, and as this is true about all the various operations which the many different workers are performing, all the parts of a large number of articles become ready and the total production is great. There is a saving not only of time but also of implements. If one person produces a whole chair then to produce ten chairs ten sets of tools will be required for ten persons, but if the operations of producing a chair are divided amongst them, then only one set of tools will be sufficient, for one person will be using the same tool again and again, and in the same time, in which he used to make one whole chair, he will be able to make one part of the chair for more than ten chairs. Moreover, when there is only one simple operation to be performed it can be easily learnt, and so the period of training is shorter than it would have been, if all the operations were to be learnt. Last, but not the least, there is another very great advantage, and that is that a diversity of work enables workers of different capacities and strength to find work. This could not have been possible when one man produced the whole article. That man must be strong and capable enough to perform the most difficult operation of the process. But now the work being divided into many parts the strong may be put to the difficult portions, and those who are weak to the easy ones. This means a saving of the energy, for now the strong ones have not to waste their time in performing the easy operations, as they had to do when they produced the whole article themselves. As a result the quantity produced is greater and the produce is of a better quality.

But there are some very serious disadvantages also. The greatest disadvantage is that the labourer becomes dependent upon the employer. When he used to produce the whole article himself he could sell that article and make his living, but now he cannot make the whole article. All that he knows is how to do a particular act in the process of its production, and if he falls out with his employer or the employer does not pay him sufficient wages, then he cannot support himself by producing the whole article and selling it in the market. He must search out another employer who wants a man knowing how to perform only that particular operation. This is not very easy to do. And so the poor labourer is placed in the power of the employer. This disadvantage is reduced to a great extent by the introduction of machinery. If a person acquires a knowledge of the way in which a machinery works, then he can understand the working of another kind of machinery easily as the main principles of mechanical work are the same. In this way he can put himself to a different work. There is a second disadvantage which also has been very much reduced by machinery, and that is of monotony of work; when one operation is repeated again and again the work becomes monotonous and tedious. Here again a machine comes to the rescue, for when the operation becomes simple enough to become monotonous it is taken up by some machinery. But there is a third great disadvantage which is not cured in any other way, and that is that the artisan is changed into the wage labourer. One who led an independent life producing and selling his own goods has now to work for wages as a servant of another. That healthy independent life is gone for him. He knows only a part of the work and so cannot produce

on his own account. Even if the machines help him to do the other parts of the work, then also he must seek out some employer with machines wanting his labour. He cannot instal all the machines at his own expense. Thus he becomes wholly dependent upon the employer. This combined with the factory system, which we shall study in the section on "methods of production", has produced a class of wage-labourers, and has given rise to a whole class of problems, called the labour problems.

Labour is the active agent of production and so when we want to know the productive Labour power. power of a nation it is pertinent to enquire how much active producing power of labour there is in the country. Labour power depends upon the population, but the whole population will not be included in an estimate of the labour power. The children, the invalids, the crippled, and the aged must be excluded. Only the proportion of adult workers is to be taken. The work of these also will depend upon their health and strength. The average duration of life will give the approximate period of time which is available for the workers to produce goods. This average depends upon the rate of birth and death at different ages. All these questions are important, and they not only show the potential power of a nation for producing goods, but they also indicate the prosperity or otherwise of the nation. Statistics on these points give a sure indication whether a nation is improving, or progressing, it is deteriorating.

Rates of birth and death depend upon many things, natural, social, economic and psychological. In hot tropical climate Rate of birth- depends upon natural, social etc., maturity comes at an earlier age than it does in cold climates, and so the time of marriage is earlier and the rate of birth

high. On the other hand climatic conditions and sanitation have an influence upon the duration of life and the rate of mortality, which is larger for countries backward in sanitary practice. Social customs like child marriage also influence greatly. While by producing early marriages they increase the birth rate, at the same time the physical deterioration increases the death rate, specially in infantile mortality. Moreover, in the long run both the tropical climate and early or child marriage decrease birth rate by decreasing the fecundity of successive generations. This fecundity is also decreased by luxurious living and intellectual work. The labouring classes are more virile than the liberal ones. Moreover education on the whole acts as a check on sexual intemperance, and often serves to remind a person that he should try to provide the means of support and subsistence first before having many children. Sometimes this necessity of provision does check the increase of the new members of society, and such prudent and provident men often marry very late, or even remain bachelors. This is specially so with men of moderate means who are sufficiently educated to realise the responsibility of procreating children, but who have not sufficient means to make them free of anxiety on this point.

Those, who are poor, have no great prospect of rising high, and have no ambitions are, often improvident. Slight success means the attainment of their objective. They are satisfied if they can somehow make the two ends meet, and the next thing they think of is marriage. This makes the birth-rate in the lower classes high in comparison with the upper ones. City life and country life also have some influence in this connection. Country life is healthy, free, contented and less ambitious than the town life, and so the birth rate there is higher than

in the towns, where the congested life decreases fecundity, and high ambitions and discontent with the existing standard of life often stand in the way of increasing the population. As a rule population increases more with general prosperity than in times of anxiety and agitation. Fertility of soil, plenty of work, and small cost of living with healthy conditions of life in good bracing climate tend to increase population, and that also of a sturdy character. High moral standards produce strong and healthy persons, while immoral habits cause physical deterioration and decrease virility.

The population of the world, however, goes on increasing. Malthus studied this problem and found the rate of increase of population alarming. He even formulated a law that while the population increases in the geometrical progression, or of 2 to 4 to 8 to 16 and so on, the means of subsistence increase in the arithmetical progression as in 1, 2, 3, 4, 5, 6. He found that the population of a country, other things being equal, tends to double itself in 25 years. This increase is greater than the means of subsistence because the quantity of land is limited. It cannot be multiplied to supply the increased needs; and in the case of the existing land production is not in proportion to the labour and capital employed, but is in a diminishing proportion, and so production does not keep pace with effort and population. On the other hand one family having a number of children means the founding of as many new families as the children are. Thus while the population goes on increasing at a rapid rate the means of subsistence do not increase at the same rate.

If this were to go on unchecked the prospect
 Checks to increase population. would indeed be rather alarming. But certain checks have been provided by

nature in the form of war, epidemics and famines. The truth of "war is a biological necessity" is probably well realised when attention is paid to this great problem. But in spite of these checks the population goes on increasing and Mr. Malthus affirms that unless mankind adopts artificial checks of moral restraint, and helps this restraint movement by a wide diffusion of education, the future is not very pleasant. Social customs and laws may encourage or discourage procreation of children. In France at one time the increase of population was actively encouraged by the state granting a kind of bonus on the number of children which a person possessed. In India the idea of Shradh and Tarpan, which provides that for the peace of the souls of one's ancestors he should perform Shradh and Tarpan, is also to encourage in the people the idea of having children to perform these ceremonies for them, and thus keep up the numerical strength of the nation. On the other hand if having a large number of children saddles a person with any legal and social responsibilities the increase of children is likely to be discouraged.

There is much truth in the theory of Mr. Malthus specially when applied to the world as a whole. But in the case of any particular country it may not apply at all. Thus where a country produces enough non-agricultural goods, it may export those goods and get agricultural produce from other countries. Its increasing wealth may enable it to get this produce in spite of rising prices. But ultimately that food also must come from some part of the world; and those parts of the world suffer where the people are too poor to be able to purchase food at its rising cost in sufficient quantities. Such a poor country will in reality be suffering a double share of trouble, its own trouble or pressure of population

and also the cost of maintaining the wealthy country in plenty. It is true that while the population increases progress in agriculture and improved methods of production raise larger crops. Who knows, some day artificial substitutes for food may be made. The population of the world has so far found sufficient food to support itself, and it may still find it to be so, then Malthus' theory would not remain of practical importance. But this also cannot be denied that the population does increase more rapidly than the means of subsistence. Only there is no ground to be so greatly alarmed over the thing. Nor can we lay down an exact mathematical proportion with perfect certainty as is done by Mr. Malthus.

In India a huge proportion of the people do not get enough food. Although she produces more than sufficient for her inhabitants, but other wealthy nations buy our grains at high prices which it is not quite easy for the poor Indian labourer to pay, and the result is under-feeding.

CHAPTER V.

CAPITAL.

We have been using the word capital very often. and now it is time to enquire what
What is capital—a kind of wealth. do we mean by the word capital, which is the third agent or factor of production. In the chapter on land we have spoken of the application of labour and capital to land and there it looks like money or say rupees. Indeed in ordinary talk we do mean money by capital, but this is not scientifically accurate. What is used in producing wealth is not money but somethings or articles which directly help the production. Money only purchases those articles, and in itself represents the power of purchasing them. Therefore, in common parlance when we speak of the quantity or measure of capital possessed by a person, we may consider the measure to be represented by the amount of money in his possession, and so may speak as if that money were capital. In reality, however, that money is not capital. Thus in the case of land what is applied, apart from labour, is seed, manure, and a plough worked by bullocks. No body can take the work which these things perform from rupees. Rupees cannot be used as seed or as manure or as a plough. But we speak of rupees as capital only by courtesy, because rupees can purchase these things. This makes one thing clear that capital itself is wealth, for all these articles are wealth. But what is the difference between ordinary wealth and capital? Ordinarily

Which yields income—no. it is defined as “that wealth which yields income”. This definition is inaccurate and wrong. Capital is a

factor of production, but this definition says nothing about its productivity. Income may be yielded without producing anything new. Suppose a person hires a carriage for going in a marriage party. This carriage is not used in producing any wealth. Its utility is being used up undoubtedly, but it is being used up directly in the satisfaction of wants as other wealth is used, and it is not used for producing further wealth or utilities to be consumed later on. Suppose another person hires a carriage to go to a factory to direct what kind of cloth should be woven there. The carriage takes him to the factory in a short time, thus saving his time, and enabling this saved time in being used in increasing production of that kind of cloth. The difference between this and the use of the carriage in the marriage party is quite clear. Still in both cases the carriage will yield an income. The factory manager will pay because it has enabled him to gain more wealth, and the one of the marriage party will pay, because it enables him to satisfy his wants, just as he will pay for sweetmeats he purchases; those sweetmeats will not be capital but wealth, only to be enjoyed. It may be objected that so far as the owner of the carriage is concerned there is no difference, for he in both cases gets an amount of money, which can purchase an amount of wealth or useful articles, and so he has produced that wealth with the help of his carriage. But this reasoning is incorrect, because the carriage proprietor does not produce any new wealth merely by getting the hire. The hire represents a claim to existing wealth. So long this claim was in the possession of another person, now it comes into his possession, but no new wealth is created merely by

its transfer. It is created in the case of the factory manager who is enabled to produce more cloth of a particular kind than he would have been if he had walked on foot. You cannot say that in the case of the person going to a marriage party there is a creation of utilities, for the utilities already existing in the carriage are being used for the satisfaction of his wants, no new utilities are created, while in the case of the factory manager actually new utilities are created in the form of producing a kind of cloth which is specially in demand. Thus the income of the carriage owner does not always represent an increase of wealth or utilities. Further we have to remember that Economics is a social science, and enquires into human activities in a society, noting their affect not only on the person undertaking the activities but on the whole society. Therefore, what we have to see is whether the use of the carriage for a marriage party has added any new wealth or utilities to the existing store of national wealth or not, although it may have added to the wealth of the individual, the carriage owner. Such addition to the individual's wealth is merely a transfer of existing wealth. Thus it is clear that mere acquisition of income does not make capital productive, and so such a definition is not suitable for a factor of production.

Capital, therefore, should be defined as "that wealth excepting land which produces further wealth or utilities in conjunction with labour". We have seen that both capital and land are two forms of wealth, but their characteristics are so different that they are classed in separate categories. So all wealth excepting land used for producing further wealth is capital. It is necessary to add "in conjunction with labour" because capital being non-

living cannot produce itself; it is only when it is used by labour to help in production that it helps to produce more than would have been produced by unaided labour, and for this reason its use is productive of additional wealth.

All capital is wealth, but all wealth is not capital.

Same thing may be capital or wealth according to its use.	Only that wealth which is used as an agent of further production is capital. One thing may be wealth at one time and capital at another, or may be wealth for one person and capital for another.
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Thus a motor car with a wealthy person is wealth, which he uses for his trips, but if it is sold to a doctor who uses it in paying visits to his patients it becomes capital. The doctor's motor also, if he uses it for going to see a friend, is wealth, but if he goes on a professional visit it is capital. Milk when used as a drink is wealth, but if used for making sweets by the confectioner it is capital. Sometimes a mistake is commonly made in deciding what is capital and what is not. When we try to draw up a list of a person's capital his stock in trade

Stock in trade-not true capital.	is included in it, but this is a mistake due to the old idea of income. The stock-in-trade is the wealth which that person is trying to sell for
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the consumption of others. That stock does not enable him to produce further wealth or utilities, it itself is the "further wealth" which he has produced with the help of other capital. It will, however, become capital if the purchaser uses it in some process for producing further wealth. An example will make it clear. The sweets exposed for sale by the confectioner are not capital but wealth, for the purchaser will eat them, or will present them to his friends and relations for being eaten or consumed. What is capital is the raw material and implements used

in producing those sweets. But when such stock is used in another process of production it becomes capital. Thus wheat purchased from the grain merchant may be used for food or for seed. In the first case it is wealth and in the latter it is capital.

Capital being a kind of wealth, naturally, will be produced as other wealth is, but what is important is to find out how does it come to be reserved as capital distinct from the wealth intended for direct use and satisfaction of wants. The general theory is of saving, abstinence or waiting. One who produces wealth, if he postpones consuming it, or waits for a better opportunity to use it, or in other words saves it from his immediate use he lays the foundation of capital. Human nature is so constituted that it values present satisfaction more than a future one, and so if the future one is to be valued it must be sufficiently more in volume to compensate for its being in the future. If, therefore, a person postpones the use of a thing to some future time, he does so either because he expects to have a greater need of it in the future, or because he expects to produce more of its kind with its help, and thus increase the amount of satisfaction on that future date. In the latter case he is producing capital, and he is entitled to such increased satisfaction, or to the wealth produced with the help of the wealth he has so saved.

The advocates of the labour theory object to this right. They represent that saving, abstinence, waiting by themselves are negative acts and so are not positive efforts in production. Such negative acts cannot be said to produce anything. What happens is merely this. A person finds that he has an excess of goods which he cannot consume, and so these.

Labour
theory.

goods or wealth accumulate, and this act is given the name of waiting, saving and abstinence. No one abstains if he really requires to use a thing. It is because he can do without a thing that he saves it. This excessive wealth he lends to the labourer, who produces with his labour, and then a large part of the produce is appropriated by the capitalist. In reality the whole produce is the result of labour, for wealth used as capital was produced by labour for the purpose of further helping labour itself in producing more. Thus capital is the result of labour and not of saving.

Whether a capitalist retains an undue proportion of the value produced by labour with the help of his capital is not the point here, nor does it affect the question how capital itself is produced. That capital also is produced by labour no one will dispute, if it means that it is produced as other wealth is. But it is none-the-less true that from the wealth so produced capital has to be reserved, and so the act of this reservation or saving is as necessary as that of producing it. It may be true that generally it is saved where the saving does not inconvenience the person who saves, but this also cannot be denied that often a bonafide act of abstinence, postponement of satisfaction, and self-denial is practised for effecting a saving. Even where no self-denial is practised the saved wealth is kept carefully, and is not thrown-about or allowed to be un-cared for. Moreover if a man does not want to save his wealth he can invent any number of new ways of spending it. He does limit his expenditure to an amount which he considers reasonable under all the circumstances and one circumstance presents to his mind is certainly the necessity of keeping

some part of his wealth for his future needs. It cannot be denied, therefore, that saving is very important in giving rise to capital. To avoid the controversy, however, often the word "waiting" is used instead of "abstinence and saving", as it does not suggest any discomfort in the reservation of wealth intended to be used as capital. In actual life capital is produced by both kinds of actions indicated by waiting and abstinence.

Capital will naturally increase with an increase in savings, for which certain conditions are necessary. Firstly there should be a willingness to save. If there be a strong desire to consume in the present, there can be no saving. But the mere will to save is not sufficient, there must be a capacity to save. If the wealth acquired is just sufficient to meet his pressing necessities, there can be no saving. Further in saving a person is postponing his present satisfaction to a future one, and so there should be a reasonable probability of his having that satisfaction at a future time. If such probability is not present then he will not save. Therefore, where there is political agitation and uncertainty, resulting in an insecurity of life, saving will not be effected. Savings will be larger with social peace and tranquillity. The fourth condition for increasing the savings is a high reward. The greater the satisfaction that is expected in the future from a given amount of saving the greater will be the saving. This reward is technically termed interest. Thus the larger the rate of interest obtainable in the market the greater will be the inducement to save, so as to reap the advantage of that high rate of interest,

Conditions of increase :—of capital will, capacity, security, additional gain and facilities for investment.

High interest increases savings.

unless the high interest is due to political insecurity. Some-times it may happen that a higher rate of interest may decrease savings and a lower rate may increase them. This happens in the

An exception. case of a person who proposes to leave a certain annual income for his sons. If the rate is high that income will be derived from a smaller sum than it will be when the rate is low. Suppose a man wants to leave an income of one thousand rupees per annum. Then if the rate of interest is 5% the capital required will be Rs. 20,000/-. But if the rate is 4% the capital should be Rs. 25,000/- to give the same income, and so he will save more with lower interest. This is, however, an exceptional case. Generally a high rate of interest will induce increased savings. Capital tends to increase also with the development of investing facilities such as banking, because banks provide an easy means of reaping the return from the capital which may otherwise be difficult for an individual; often banks induce petty savings by offering interest on small amounts also, and thus immensely increase the total capital by producing numerous small amounts of saved capital and collecting them together. Capital is saved not merely to make provision for future for one's own self or for children, but very often because the possession of wealth commands respect and influence; with such a motive the rate of interest often becomes immaterial.

Capital is the result of saving, but what is that which gives it its productive power, and how does it help in producing more; does it really produce anything or labour is the real producer. All these questions will be very easily understood by taking a very ordinary

Productivity
of capital.

example. Suppose a person goes to a mango grove. He will be able to pluck a few mangoes on the lower branches directly with his hand, but he cannot get many mangoes in this way. He then adopts another method. He takes up stones from the ground and fells mangoes with the help of those stones, but with this also the success is not very great. Then he hits upon another device. He gets hold of a long stick or pole and is able to fell many more mangoes. The use of the pole has made a distinct addition to his stock of the fruit. In all this it has been supposed that the tree is not easy to climb. In any case it shows how the possession of an instrument increases the productive power of labour. In the above description we can distinguish between two methods of work, direct and indirect.

Direct and indirect method.

method. When the person tries to pluck mangoes he is working in the direct method, or is producing directly with his labour, applying it to the production of the article desired without diverting it to the production of any other object before that of the desired one. But when he tries to get a pole he postpones his plucking mangoes and spends some time in getting a pole or cutting a long stick from some tree ; and when it is ready he again sets himself to the old work with the help of the pole he has produced in the mean while ; and the production or collection of the fruit is so great as not merely to compensate him for the time lost in making the pole but gives much more in excess, and increases his power of plucking mangoes for all subsequent times so long as he retains that pole. This method of work, of first making the pole and then plucking mangoes is called the indirect or round-about method of work. We find therefore, that a round about method is more product-

ive, ; but all round-about methods are not so productive. If the person wanders about the grove without making a pole or stick his time and labour is of no use. Round-about method is productive only when properly directed, and the more well thought out method it is the greater will be its productivity. This increased productivity of the indirect or round-about method is due in part to the additional labour spent in the intermediate work, but in a very great part to the direction given to that work by mental ingenuity. Any invention is the result of long experiments, but once made, it increases the productive power for all time. This is the real source of the productivity of capital, and in all these operations the element of waiting and saving is present. The intermediate process could not have been performed if the mango eater had not been willing to wait. Some poles might have been cut at some previous time for use, and if any pole be remaining from them, or is saved from that use, then it would very well serve the purpose. It is true that any invention of an instrument of production is the direct result of physical and mental labour but the already saved wealth supports the experimenter in the interval, and is as necessary to enable the invention to be produced as his labour is. Thus capital depends for its productivity not only, on the direction of the mental labour employed in producing it, but also on the waiting which permits of the application of this mental labour. This productivity remains potential so long as labour does not use this capital in any process of production, and when it is so used the quantity of produce is decidedly increased, proving that the whole of the produce is not due merely to the work of the labourer,

but is also due to the person who gave some wealth the form of capital by abstinence.

The productive power of different forms of capital varies with their specialisation. Efficiency of capital increases by specialisation. The more complicated the form, the better adapted it is likely to be for delicate operations, and the greater will be its power of production.

Crude instruments are not so efficient as well designed machines are. But mere complication does not impart this productive power, it is the design of the machine and the ingenuity of the maker which makes it possible to be so productive. It requires greater skill, labour and time than an ordinary tool. The method is more round-about than that of a simple implement and the productivity also is increased.

From the above discussion it must have become clear that capital is artificially produced as opposed to land and labour. In reality there are artificial elements in land and labour also, while there are natural ones in capital, and so all that is meant is the predominance of a particular aspect. Thus any labourer is not exactly what he was when he was born. His natural capacities are not quite such as they would have been if no artificial forces had worked upon them. His life in society, his education, his training all change his capacity for labour and make him more efficient in particular things. Similarly in the case of land human agency has done so much work upon it by way of improvements, clearings, drainage, and irrigation that it is not in its old natural condition. On the other hand in capital there are natural elements. Indeed the whole material of capital from the unshaped stone used for felling mangoes to the complicated machine

is a product of nature, but that product of nature has been used in a particular way or put in a particular shape by the skill of man. The influence of this artificial manipulation is not so great in land or labour, but in capital the natural materials may be used to serve any purpose and in any way and may be put in any shape, which human ingenuity may desire and devise. Capital does not complain as it is a passive non-living agent.

Although the artificial production of capital depends upon materials available, but May be increased. for practical purposes such supply is inexhaustible and capital may be increased to any extent. Moreover, another fact makes this quality of capital even more striking. If the supply of a particular material used in making an instrument is exhausted man will find out some other method of making an equally efficient-instrument. Thus the skill of man makes it capable of being increased to any extent. This is not the case in land, the supply of which is strictly limited and the production from which depends to a very great extent on natural elements.

The third great peculiarity is its great mobility. It suffers neither from the immobility of land, nor from the psychological characteristics and social influences which restrict the mobility of labour. It may be packed off to any place and may be used in any work. The only condition necessary is that there should be political security in the place of its employment, so that the owner may get his return safely. It should be noticed that this condition of security is necessary for the sake of the owner and not for that of capital itself. So far as the non-living capital is concerned it is immaterial where it is used, it will begin to produce the

moment it is used by labour for the purpose. So in theory capital is perfectly mobile, though in practice there are certain conditions necessary for its movement which we shall shortly consider.

A fourth peculiarity is its imperishability. It is not so indestructible as land is, but in comparison with labour, which, we have seen, is perishable, it is much more so. Capital can be stored and kept for any length of time. The very fact of saving indicates this capacity for being kept for a long time, else it could not have been saved. Further, this quality makes the productivity of capital capable of being utilized in numerous processes of production, and that is why it does not only compensate for the additional labour of the roundabout method but increases the productivity for a long time after. But all capital is not equally durable. Thus seed used for cultivation is not so indestructible as a plough is. If left for a long time the seed may become rotten. But the essential quality of being kept for some time at least must be present in all the forms of capital for then alone it can be the subject of saving.

The capitalist is often attacked for deriving an income without doing any work. In Social Utility of Capital. producing capital somebody laboured as he laboured in producing other wealth, and then the producer consumed some wealth, and saved the rest. The latter part became capital; and he has a good right to use this saved wealth at any other time he pleases and in whatever way he likes. If another person desires to use it the owner is entitled to ask something in return for the permission, for by granting such permission he is further postponing his own consumption of the wealth previously saved. The right of the capitalist is not good only upon these

grounds of law and custom, but on other social grounds as well. His act of saving and creating capital benefits not only him but also the society in general. The use of capital increases the

production of wealth, and taking the society as a whole it increases national income, or the increase in the wealth of the nation is greater than it would have been if there were no

capital. When the whole national wealth is increased naturally the shares of the different members of the nation also will be increased. It is not true to say that the labourer will not benefit from it. Supposing a person employs a labourer to do a work, then he supplies an instrument to the labourer to work with, thereby increasing the productivity of the labourer. The capitalist will then have a larger margin to pay the labourer, and would be willing to pay more wages rather than lose the labourer and stop his production altogether. The labourer cannot remain unaffected by the general progress of society; will naturally get more and his standard of life will advance.

Another advantage to society from the increase of capital is that capital enables big works undertaken. huge works to be undertaken, which would have been beyond the capacities of unaided labourer. The huge railroads, the giant bridges, the great ships are some of the examples. Without capital, probably, we all would have been naked, savages or would have wandered forth with clothes of leaves. A bridge on a river is used by the rich and the poor alike. Increase of capital has benefitted all classes of persons. Indeed the very progress of civilisation is in a great

Progress of civilisation. degree due to increase of capital. It is true that the progress of civilisation is a result of the development of the mind. This development of the mind is the cause of the adoption of roundabout methods of production and the creation of capital. The created capital in its turn helps the mind to make further attempts at inventions. Moreover when increased production satisfies the human wants easily, the attention is naturally turned to improving the quality and beauty of the things used, and this development of the aesthetic faculties necessarily civilizes the mind, it makes a man out of a brute. The advance of civilisation from the early savage condition has been possible mainly through this excess of production, caused by the use of capital, providing a reserve, and so an opportunity of devoting our energies to the arts and sciences, and the effect of this general progress does not remain confined to any particular class, but spreads over the whole community.

We now know what is capital and why it is productive. Capital proper or that wealth which is used for producing further utilities is also called instrumental or auxiliary capital to distinguish it from other kinds, because it is used as an auxiliary to labour. We have seen that the definition that capital is that which earns income is wrong. But at the same time it appeared to be capital for the individual as it brought him income, and so such capital which earns income without really helping production is called "revenue or lucrative capital". Properly speaking it is not capital at all, it is called capital by courtesy, as it has got the

Kinds of capital. Instrumental or Auxiliary,

Revenue or Lucrative,

characteristic of capital so far as the individual is concerned, and in common parlance it is included in an inventory of the individual's capital. Thus a house which is rented to a person who uses it for residential purposes is lucrative capital to the owner who gets the rent. It is wealth to the rentee who uses it for satisfying his want of shelter. It cannot be said that the living in the house makes the person fit to produce wealth in the workshop as it frees him from the anxiety of shelter and so it indirectly helps in production. From this point of view nearly all wealth will become capital, as the satisfaction of all wants, which are not immoral makes a man better able to apply himself to production. The food he eats will also become capital; then there will be little difference between wealth and capital. And so capital proper is only that which is directly employed in a process of production of further wealth or further utilities.

Similar is the case with the terms "trade capital, consumption capital, remuneratory or wage capital, working capital, and representative capital." They are not forms of capital proper, but are called capital in ordinary language. Thus in trade capital the stock in trade also is included, but we have shown that the stock in trade cannot be capital unless it is used for further production as, wheat may be used for seed. Similarly the money used in providing goods for the consumption of the labourers during the process of production may be called consumption capital as it enables the labourers to do work and wait for the return of that work to be obtained, but it is not really capital, as it is used for the satisfaction of the wants of the labourers and not for the produc-

tion of further wealth. It is true that the satisfaction of the wants of the labourers also is very important, and it enables the workers to do better work, but this would not make the goods consumed capital. Similarly remuneratory or wage capital is that money which is used by an employer to pay wages before he himself is able to recoup his funds from the sale of the articles produced. Working capital is the name given to the money which an industrialist keeps ready for current expenses of his industry. Examples of representative capital are stocks of companies, as they represent the holder's share in the actual capital of the company. Other kinds of such capital by courtesy are "loanable capital" meaning the fund available with the banks for being lent for productive purposes, and "personal capital" which is used to indicate the personal capacities and skill possessed by a person which enable him to earn an income. In reality such capacities cannot be capital when they cannot be even wealth.

There are, however, several classess of capital proper. The first distinction is of live and dead capital. It has been explained above that animals are included in capital. Such capital is called live capital, while all other capital is dead capital. Both are passive agents of production. They produce only when used by man, and so the fact of animals being living does not make any difference in their importance as factors of production. The animals may be taken anywhere and may be used in any work. They have no psychological or social hinderances.

Another very important distinction is that of fixed and circulating capital. Fixed capital is that which can be used in several processes of production at di-

fferent times, while circulating capital is that which is exhausted in one process of production. Thus in a weaving mill cotton thread used for weaving cloth is circulating capital, as it is used up in the cloth, it cannot be again used for the same purpose, while the machinery is fixed capital, as it may go on producing cloth after cloth. The greater or smaller durability of fixed capital is determined by two factors, the amount of labour used and the foresight with which that labour is directed. The more durable things are generally produced with greater labour, and one should be able to foresee the needs of the future to be able to make an instrument which may be capable of profitable production for a long time. Indeed sometimes it may be rather unwise to make excessively durable machines because in the meantime better models may be made, and as a good deal of capital and labour is employed in producing a durable thing it may be lost if it becomes out-of-date very soon. No industry which uses out-of-date machinery can compete with one which uses up-to-date machines.

Another distinction is that of private and social capital; private capital is possessed by a private persons, or person as a factory, while social or national capital is possessed by the society as a whole, such as state railways, roads, bridges, which are used providing income to the state and at the same time in helping national industry and trade in the production of further wealth or utilities.

Besides these classes the terms free, floating; or fluid capital, are also used for money fuel or other unspecialised capital which can be used in any form of industry. Money represents a claim or power to purchase capital proper and

Social or
national and
private capital.

Free, floating,
fluid or
unspecialised
capital.

it can purchase capital of any kind. As it can be used to help in any kind of production it is called fluid, free or floating capital or capital which is not fixed in any particular branch of industry. In the case of fixed capital it is not always easy to change its form and use it in any other kind of production, but as fluid capital has got no particular form this difficulty does not exist in its case.

Sunk or specialised capital. If the fluid capital is used up in producing a fixed capital its form is changed, and it no more remains fluid, but it is said to be sunk or specialised capital.

The larger the proportion of fluid to sunk capital in a country the more adaptable will be its industrial life as it can easily adopt any profitable industry.

Theoretically capital is perfectly mobile, but in practice it is so only under certain conditions, and they are chiefly two.

Mobility of capital. One is that the communications must be good so as to allow of free mobility, and the other condition is that there should be political security in the place where capital is used. For if there is no such security the capitalist will not invest his capital in that place, for then there will be a danger of his losing it. The development of communications has knit the whole world close, and has enabled enterprising capitalists to invest in distant lands. This investment in foreign countries has on the one hand increased the chances of political security, as other countries also become interested in the maintenance of stable conditions in another country, and so would try to avoid war. On the other hand it has introduced a new method of exploitation of others, and so of rivalry between the different nations to get the gains. Moreover the

increasing industrialism has created class conflicts between labour and capital, and has added another source of agitation—economic—to the already existing religious and political ones. The above two

Rate of interest. conditions existing, the rate of mobility is increased by the expectation of a higher reward in the other places.

The higher the reward the sooner will the capital move. Another point that we have to remember is that mobility is different for different kinds of capital. Thus fluid capital is most mobile. It may be

Mobility different for different kinds of capital. sent anywhere and in a short time, but it is not so in the case of fixed capital. The greater bulk of fixed capital increases the difficulty of moving it. Moreover the form of any

particular fixed capital suitable for the methods of production in one place may not be quite so suitable at another, or the labour which has got the technical skill to work it may not be available at the other place. In such a case it will not move to that place even though the reward obtainable there is higher. In moving from one use to another fluid capital is free. Money invested in a particular trade may be reinvested in another. But it is not so easy to change the use of fixed capital, as it has been designed for a particular purpose only, and in using it for any other purpose its efficiency may not be so great.

CHAPTER VI.

ORGANISATION AND ENTERPRIZE.

We have seen that in processes of production which depend upon the natural elements the law of diminishing returns predominates, as the intellect of man devises ways to overcome difficulties and invent new methods for increasing production. He makes a little change in the organisation of labour and capital, and the produce becomes greater than before. It is this capacity which has made the immense development of the industrial world possible. The better the organisation the greater is the production. Some kind of organisation is necessary for all production, for if capital and labour do not come into proper relations they cannot work at all; without suitable labour the best form of capital will be useless, while the most skilled labour will be inefficient without proper instruments. If there is a waste of any of the factors of production used in the process the cost of production will be great, and production will be handicapped by its expensiveness. A proper organisation avoids this waste, and increases the proportion of the produce per unit of the cost of production. Organisation, therefore, does increase the production of wealth and so may be considered as a factor of production. The better the organisation, as said above, the greater will be the produce.

But it is not material like the other factors of production, nor living like labour. It is neither living nor dead. It is not a palpable thing. It is a mere state of facts, but this state of facts is conducive to the increase of wealth. Organisation is impersonal. It remains where the organisation is effected, and may be moved or produced where the organisers go and work. But it has one characteristic. It is capable of practically infinite development of forms of increasing efficiency.

But this organisation, though a result of human ingenuity and labour, is not that labour itself. Organisation is distinct from organising labour of the organiser or the manager. The former is a state of facts while the latter is human labour. Capital also is a result of human labour and waiting, but is not identified with that labour or act of waiting.

Neither is organisation the enterprise of the entrepreneur who undertakes the risks of the business. He takes the responsibility of the whole work and tries to arrange the work so that it may prove profitable. In case of success he gets profits; this success, however, depends upon the quality of organisation he is able to set up, upon the accuracy of his calculations. The organiser and the manager is paid his special wages for his special labour, and the entrepreneur gets his profits for taking up the risks of the business, and producing a particularly effective organisation. The modern joint-stock company affords a good illustration. The real organisers are the managing agents, but the persons who undertake risks are the shareholders. They supervise the organisation through

their representatives, the directors. The managing agents get for their labour a remuneration the rate of which is previously settled, while the shareholders get a dividend varying with the condition of the business *i.e.* a return for risks, or profits. Their share in producing the organisation consists in agreeing to take work from the particular managing agents. If they make a mistake in this, they lose; if the selection is proper, they gain. They get those profits if the organisation is able to increase production in comparison with other forms of organisations. Then it is a success. If on the other hand that particular organisation produces as much as other organisations do, then its rate of profits also is the same, while if it produces less, or is, in other words, not a success, but is inefficient, then it brings no profits. Thus the profits are a return for the risks undertaken obtained through the efficiency

of the organisation increasing the national production. The actual organiser may be a servant, may get his wages, but the person who is ultimately responsible for the selection of this organiser,

for the provision of the necessary capital and other things is the entrepreneur; so the organisation is, after all, a result of his care and anxiety to minimise the risks of the business. Often organisation and enterprise are considered as separate factors of production, which thus become five. But this would be like separating the labour and the labourer. Like labour what helps production is the actual organisation. The entrepreneur is the person who brings about the organisation. He gets the returns, profits, just as the labourer gets the returns for labour *i.e.* wages.

The reason why organisation and enterprise are separated into two factors appears to be that the two functions of organising and undertaking the risks may

The reason
of separation.

Are organisation and
enterprise separate
factors?

apparently be performed by different persons. The separation of functions suggests a distinction of the two factors. On analysing the work of organisation two elements may be distinguished. One is the work

Two elements
in organi-
sation.

which can be done by a paid organiser. The other element is the effect produced by the anxiety of the entrepreneur to see that the organisation is in

competent hands, and is being set up in an efficient form. Many organisers like to take service under entrepreneurs rather than undertake the responsibility of the whole business themselves. Even in those cases in which paid organisers are employed the undertaker cannot divest himself of responsibility altogether. His authority remains supreme. He still

Work of
organisation
is no new
factor.

guides the broad policy. The work of the paid organiser is not a new factor of production. It is a kind of skilled intellectual labour, and is

governed by the same laws as labour. So far as this part of the work increases production, it is due to labour, acting as an agent of production; on the

The second
element is
inseparable
from enter-
prise.

other hand the second part of the work, the influence exerted by the anxiety of the entrepreneur, can never be separated from enterprise. Where-

soever is the responsibility of the business there will be the constant anxiety to make it profitable; and this anxiety will always exert its influence on the form of organisation. This is the influence which counts materially in increasing or decreasing the profits. If the paid organiser is not given a fixed salary, but his remuneration varies with the profits, then he shares the risks, and his work is not purely intellectual labour, but is also that of the entrepreneur. He feels the same anxiety, which brings all his powers into play. He is not

now merely a paid servant with set method of work. We find, therefore, that this part of organisation can not be separated from enterprise. It is the expression of enterprise. This is also proved by the fact that

One return-factors are even where organisation and enterprise are not differentiated, the whole return is taken as one profit, excepting that

wages of organising, or the remuneration of the actual labour that the entrepreneur may have performed in organising, are deducted to find the return for enterprise *i. e.* profits. These wages do not point to any new factor. And the return for enterprise is the extra income created by the daring foresight of the entrepreneur by putting up a carefully planned business organisation. This anxious and careful planning will always be associated with enterprise and with enterprise alone.

Every process of production has some form in which land, labour and capital combine

and there must always be some person who undertakes the risk and determines this form. The functions of entrepreneur, labourer and capitalist.

may all be combined in one person or may be performed by different persons, but the function of the entrepreneur must be performed to make production possible. In producing by the direct method capital may be dispensed with, but the labourer undertakes the risk of his labour proving to be useless, and determines the way in which he should work upon natural things, so as to increase the chances of his success to the utmost. In that simple form this combination of his labour and natural agents is organisation which has been put up by him as his own entrepreneur. With increasing complexity of work the form of organisation becomes increasingly complicated, and these various forms of organisation we shall study in the section of methods of production.

CHAPTER VII

MOTIVE POWER.

Land and capital are non-living and so require to be worked upon to produce wealth. They become highly productive when used by a labourer. Land may produce fruits even without human labour, but the produce will not be very great, while capital cannot produce anything at all without the help of labour. Labour is the active agent, the agent which moves and manipulates things and brings them into a proper relation to produce further wealth. So the main motive power is that of labour, and we have discussed the considerations to be kept in mind in estimating the labour power of a country, as also the conditions which tend to increase or decrease the population. Here we propose to examine the kind of country in which the population tends to concentrate. As a rule population gravitates towards

Population is large in fertile and secure tracts.

tracts of fertile land where the means of subsistence are plentiful and are easily obtained. But mere fertility is not enough, it must also be safe from external attacks. Popu-

lation will be scarce in a place which is a sandy desert, or is rocky and mountainous, and so does not yield enough for a large population. It will not be very large where it is open to attacks, or if it does concentrate there it will be either very hardy to keep itself safe or will be under the domination of others. We find in India that population is largest in Gangetic plains which are

protected by high mountains and enclose one of the most fertile tracts in the country, while it is very scarce in sandy Rajputana or acrid Beluchistan. The country should have a good climate and should not be subject to the rigours of extreme cold, nor should be marshy or extremely hot. Sometimes, however, great fertility makes the population thick inspite of a bad climate.

Good climate
and communi-
cations
necessary.

Another condition of a large population is good communications. It has been observed that in new countries the immigrants settle either near hills where they may be safe from attacks, or near river banks where communications might be easy. Most of the big cities of the Gangetic plain are situated on the banks of the Ganges and other rivers. Population is naturally not large in dense jungles or impassable mountains.

For the major portion of the history of man-kind agriculture has been the mainstay of humanity, and even now agriculture is the occupation of by far the majority of the human race. So in the past the village system or life in the country near the fields has been the rule and that of cities the exception. The main causes that have in the past determined the growth of cities are either religious sentiments attached to a particular place establishing it as a pilgrimage, or political or military causes determining a place to be the capital of a prince or chief or as a military station. In such places merchants and artisans flock to supply the needs of the pilgrims, or of the prince's court or of the military stationed there and form a permanent population. In capitals royal patronage assembles the best artists and artisans and makes the place a centre of the finest productions of the land. In modern days two other causes have led to the deve-

Growth of
cities in old
days due to
political, mili-
tary, and religi-
ous causes.

Health resorts. development of new cities. One is the founding of health resorts on the seashore or in the mountains. Nainital and Mussoorie are examples. Another cause has been in modern days industrial causes predominate. the industrial revolution. Now the population tends to gravitate towards those places where industries are established, as the inhabitants can find sufficient work there. In Europe many new towns have developed owing to industrial causes. In India also Cawnpore and Jamshedpur are examples of this tendency. In old days places of special importance for trade and commerce developed into towns at the sea ports or in the places of central Trade centres. markets. This used to be mostly on the river banks or seashore which were easy to communicate with. Now such centres develop at the ports or at the centres of railroads. And such places tend to be not only centres for trade and commerce but also for industry. Delhi, Bombay, Calcutta, Karachi are towns of this character.

Other forms of power are non-living and so they can not work a process of production of themselves, but have to be worked by man. They are only auxiliaries to man. Although they require to be set in motion by man, but when once moved they can do that work which would be physically impossible for man. The reason is that man being living he feels the exhaustion of hard work. Moreover, he is a natural being and so cannot be moulded artificially. His powers to a great extent are determined by nature, while in the case of machines they can be made of different designs and degrees of power. The chief of these physical powers are those of steam, electricity and gas. For producing steam-power, fire produced by coal heats water forming steam, which fills a receiver

and forces out a cylinder. To this cylinder is attached a wheel which moves as the cylinder goes in and out. This wheel is attached to various other wheels of the different machines with straps and thus all the wheels are moved and the machines begin to work. This is the power which is most used in the different industries, railroads and ships, so much so that a country which has extensive coalfields has a great influence in the industrial world. Coal and iron are the two prime necessities of modern industrial life. Coal for fuel to make steam, and iron to make machines. Now at places electricity is displacing steam, but electricity is cheap when produced from a waterfall. When water falls from a great height, it develops a great momentum and works a dynamo which generates electricity, which is carried by wires to light lamps, to drive fans or even to work mills. But this can help more near about the waterfalls. In the mountains huge lakes are formed by damming valleys and then this water is released to do the work. Coal on the other hand can be transported any where. Electricity may be generated with the help of a motor dynamo also or a dynamo may be worked with steam. In this form it is used to provide light and run tramways at places distant from mountains and waterfalls.

Another source of power which admits of transportation is oil. It is even more convenient than coal as it is not so bulky nor does it require huge boilers to make steam. It produces gas by its combustion and the gas works the machine. It is used in motor cars in which the use of coal to generate steam would have been very inconvenient. Motor engines are used on aero-planes. Oil is not so cheap as steam or electric power is, and so is not in so great a use for

industrial purposes. It has, however, developed immensely the transport industry by the introduction

of the motor. Another form of power

Water.

was used in old days, and that was the use of water directly to work a machine; flour mills were often worked in this way. The water with all its force of the fall fell in a specially made chamber on the edges of a wheel moving it in its fall. This wheel connected with others moved them and worked the machine. But this use is now falling off as it is not so handy and productive as steam is. It can be used only for petty works. Now the importance of water power is increasing only in connection with the production of electricity. In other fields the coal and the oil hold the mastery. The increasing importance of electricity does promise to dispute this mastery with coal, but at present the handiness and cheapness of coal holds the sway.

CHAPTER VIII

METHODS OF PRODUCTION. PRE-FACTORY STAGE.

Having discussed the factors of production and the power of moving them in a process of production we have now to consider the various forms in which production is organised. The first step in the

Self-sufficient
individuals.

development of the method of production would be an individual producing everything for himself, being his own hunter, his own cook and everything himself.

But such a stage, if it ever occurred in human history, must have been in prehistoric times. Actually we find man a member of society, and even in savage society there is some rudimentary division of labour, both in the society and in the family. So the first traceable step is that of a family producing everything necessary to satisfy all its wants.

Home
Economy.

The work may be divided internally between the different members of the family but there is no specialisation of different kinds of production in different families. From such a state of things a specialisation by families in the same village could easily arise in course of time. Supposing there are families A, B, C, in a village K. Each one of them is self-sufficient. But this does not mean that all the three would be quite equally skilful in all branches of production. Supposing A chances to be more skilful in making mats. Sometime members of the families B and C chance to see those mats and are struck with their superiority to their own. They might express this liking and

may after sometime even take mats from A and give to A anything produced by them. The A people may refuse at the time, but later they also may happen to like some other thing produced by B or C, say tools and stools. Then as all the parties like the goods of each other an exchange may be arranged. Gradually this may become known in the whole village; in course of time other families also might desire to be included in the exchange and the custom of exchange may be religiously sanctioned by the priest. Then the production of mats, tools and furniture will tend to be concentrated in A, B, C. These families will produce these things in greater quantities to meet the growing demand, and will get their own necessities in exchange. This increased production of these things will give them greater practice, will increase their skill and improve their

Village Economy. product. Now a village economy is developed: the various families are not separate and self-sufficient units but are dependent upon each other and specialise in different branches of production of wealth and services.

From this stage the next stage would be introduced probably by the visit of an inhabitant of another village H to our village K. He finds in K different things being produced and likes them; he may propose to take them and give something from his own stock in exchange. Increased intercourse between H and K may at last lead to the consummation of this wish and an economic intercourse may be established between the two villages. Gradually other villages may enter the system and a specialisation by villages may follow. Gradually a market in some central locality may be established to make it easy for the producers and purchasers of different villages to come together without any

Development
of local
markets.

great trouble. The fame, influence and sphere of these markets may extend gradually.

The extension of the markets will give greater scope for the work of artisans and their numbers and skill will increase. Some of these artisans, probably the best, will be attracted to the cities formed at the capitals of the princes, or some may settle down at places where central markets are established so as to have an advantage in selling their goods and adopting suggestions from others. Such causes may lead to the collection of many artisans of one kind in a city, and they may form themselves into an organisation, the guild. In the cities the life is likely to be more advanced and varied, and the artisans are likely to develop higher skill under the patronage of the rich people. The fame of the city's production is likely to spread far and wide, and new artisans may like to be admitted to the privilege of living and working in these conditions. But where there was a guild they had to apply to the guild, as the guild regulated the number of producers in its trade as well as the standard of their work. The guild was very jealous of the reputation of its profession and did not easily admit new men. The training of its youngmen was provided by a system of apprentices and journeymen attached to the master artisan. The journeymen helped in selling the products in the various markets of the country. These apprentices and journeymen were not merely paid labourers. They were treated as members of the master's family and could aspire to be the partners of their teacher and master ultimately. These guilds later developed into powerful corporations and often purchased their freedom from the reigning king by giving him a price when he was

in want of funds. The freedom meant their right to manage their municipal affairs themselves, and this tradition is still preserved in the ceremony of conferring the freedom of a city on a notable person in England. At this stage, therefore, we find production highly developed, with central markets and a system of journeymen introducing their goods in various places like the travelling agents of the present day.

In course of time a class of regular merchants developed who made it their business to deal in the produce of the different markets. They visited distant places and gave to the home producers hints about the kind of thing most wanted in the other places. These merchants purchased the work of the artisans from different villages and sold them in central markets. Gradually they began to give commissions to these artisans, and then collected the work and paid the contracted price. Even at this stage the producer worked at home, and although he produced for the merchant employer, but was not a paid labourer. He only sold his product to the merchant instead of the consumer. This is called, therefore, the "domestic system" to distinguish it from the factory system to which it directly leads. It may have sometimes happened that in giving some commission to execute some work to an artisan there might have arisen some difficulty about finding some tools not available in the locality, and this may have given rise to a custom of the merchant employer supplying tools. The next step is naturally the factory system.

The general characteristics of this stage of production were that, unlike the factory system, the artisan worked at home. Secondly he was not a paid labourer,

Characteristics
of Pre-factory
system.

but was his own master. He produced for the merchant employer not as a servant but as a kind of contractor, or he produced for the consumer directly. Those who wanted his goods came to him in the village or in the market and purchased them. He was his own entrepreneur, capitalist, manager, landlord and labourer, and undertook the risks of business himself. In the last stage of the domestic system, he does no doubt produce for an intermediate merchant, but still a large proportion of his goods were taken by the consumers directly. This enabled him to regulate his production according to the demand. In the cities where there were a large number of artisans of one kind the guild regulated the production according to the needs of the market. A fourth great characteristic of this stage was that there was no competition with machine-made goods, which has now made the position of a home-producer or an artisan working at home impossible in those industries in which machines turn out well finished cheap products in heaps.

The great advantages of this stage of production are a healthy family life, an independent and self-respecting life and the retention of initiative. He gave to his work a degree of personal attention which it is impossible for an entrepreneur of a modern business to do. He had his eye on every detail and his fingers were more delicately responsive in their movements than inanimate machines can be, and so his work was often more delicate and finely finished than the standardised product of the machine.

It has been explained that labour is at once a factor of production and also the object for whose satisfaction production is undertaken, and so a system of production which ignores his welfare is

scientifically defective. In the modern days labourers are lodged in barracks and they all work in factories where even female and child labour is utilized. This does not allow a healthy family life. There is little opportunity for the development of those family affections which make life a heaven. The contrast between the free, pure, simple and loving life of a village artisan and the strained, agitated hurly burly life of a factory worker is simply striking. The factory labourer may get more wages than the village artisan but he is a slave with no initiative of his own. The village artisan is on the other hand his own master and has full initiative; he may exercise his ingenuity in making improvements in his simple work, while in the factory this is reserved for the higher intellects. The artisan's life is more natural and human than that of the factory labourer. And these are very great advantages indeed. Their importance cannot be over-rated. They are the things for which man lives and produces. But the modern competition of machine made goods is making this life impossible for many persons.

Other great advantages of this stage were that there was no problem of distribution and no overproduction. The classes of wage labourers and capitalists had not become differentiated and antagonistic. It is true that even then there were masters and servants, landlords and tenants but there were no class-conflicts of the present day, there was personal touch and sympathy and things were not in such an acute condition as they have become under the competitive system. Nor could there be an overproduction and a crisis. Overproduction occurs when the market is very extensive and its demand is miscalculated by the producers or the pro-

Economic—
No problem
of distribution
and no over-
production.

ducers are in excess of the need. In this stage the close connection between the consumer and the producer and the regulation of the number of producers in particular trades by the guilds enabled the demand and

Caste and the guild:	supply to be properly adjusted, and the inconvenience and disturbance of the modern industrial crisis was avoided.
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In India the caste system has had a similar effect. It regulated the number of producers in any particular industry rigidly. They could increase with the increase of the caste which would accompany the general increase of population. Thus the demand and supply would increase simultaneously and automatically. It is true that sometimes whole castes changed their professions, as when some "kshatryas" took to agriculture and dairy farming and thus became "vaishyas." But this happened when there was a large scope in that industry for new men and so did not disturb the industrial machine. Indeed the caste system governs even the social and political functions on the principle of heredity, that a person is likely to be very skilful in and to have an aptitude for the work which has been usually followed in his family.

CHAPTER IX

FACTORY SYSTEM.

We have seen in the last chapter how the extension of the markets led to a development of production and the appearance of a merchant class, and how these merchants gave commissions to the artisans and then collected their work, and how, probably, the custom of the employer supplying tools arose. With the development of communications these merchants naturally extended their operations to distant places. Their trade increased and they dealt with large quantities of merchandise. To get their goods they employed large numbers of artisans under the domestic system, but the increase of business ultimately made it very inconvenient to go to many villages to collect the work. It also meant useless loss of time. The next step was naturally the collection of the artisans in a central place to work under the direct supervision of the employer to save him from the necessity of going to different places. At the factory the employer supplied the tools and the work and the artisan his labour. The artisan had no concern with the article produced, with its sale and its profit and loss, he was paid a fixed sum or wages for his day's work. From the independent artisan he became a wage-labourer.

The greatest characteristic of the factory is the wage system and the emergence of the entrepreneur. The employer supplies the capital, the raw material, the place to work in, pays a certain

Characteristics
—wage system
and the entrepreneur.

amount to the labourer and appropriates the product to himself. He calculates the future demand and the trade movements, decides the quality and quantity of what is to be produced, collects together land, labour and capital from various sources, and often from very distant places, coordinates and arranges the work and then advertises and markets the product. He is then responsible for its sale, and its profit and loss. The labourer receives his wages and then is free from responsibility. This freedom from anxiety and a regular payment are great advantages. But he has to work at the will and at the place of the employer. He gets his wages in advance, before the commodity is sold. Now the labourer has not got his customers.

Its advantages
to labourer.

He is quite in the power of the employer; he will work when work is given and will remain idle when there is no work. He must observe a certain daily routine of duty and do his work at the appointed time.

Its disadvantages
to labourer.

He must take the wages that the employer is paying to other labourers. The labourer works every day for his daily bread and has no reserve. He cannot remain for a long time without work, while the capitalist will not starve if he closes his works for a short time. So the labourer must accept the terms offered by the factory owner. If he does not there will be so many other labourers in search of work who will take his place. This is the position to which the old free artisan is reduced.

He must not only come and go at the appointed time, but must work under the supervision of overseers and work without break for 8 to 12 hours every day.

Military
discipline.

And if the labourers working in a factory are large then barracks are built for them, and as they find it inconvenient to come from distant places they

remove to those barracks where they get a small room and live a crowded life. Now it is a "labour force." The result is that there comes to be a clear

Labour and capitalist.	division between the labouring and the capitalist classes. In the artisan stage the worker was not a servant
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but a master, a householder like any other. The difference in social position was not so great. Even the domestic servant was better in some respects than these labourers. The servant was in touch with his master personally and had human relations with him. But in the factory there is no such personal and human contact, and the relation between the employer and the labourer is merely economic. Each will try to get out of the other whatever he can get. The interests of the two differ. The labourer will try to get as high wages as possible with the least amount of work, while the employer will pay the lowest wages at which he can get labourers and get the greatest amount of work out of them. The poor labourer with no reserve is likely to be worsted in the conflict. Thus class conflicts arise and now-a-days the greatest problem that is exercising the society is this conflict of the labour and the capitalist classes.

No direct contact with consumer.	There is a fourth characteristic of the factory system, that in this system the direct contact between the producer and the consumer is lost. The factory produces for distant markets, and the possibility of making a mistake in the calculation of the demand of that market is greater than it was when the village artisan supplied the local market and could easily judge things by personal experience.
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Importance of communications.	The development of communications has enabled goods to be sent to long distances and to get news of far off markets. This has naturally resulted in the increase of
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production and the development of the trade and industry but at the same time it has also increased the risks. It is true that telegraph, telephone and wireless are making it easier to get news from any place in the world, but such reports cannot attain the authority and certainty of a personal experience. Moreover

Huge fixed capital involved, its effect.

as there is no regulation of the number of producers one may be beginning a kind of production without knowing how many other new producers are working for the same market. Further the fixed capital employed in factories is huge and expensive and cannot be left idle. This fact induces the producer to go on producing often when his goods are not wanted, only in the hope of selling them away in future, and in the mean time the conditions might change.

On the other hand the advantages of factory system are great. The factory is able to make large economies in its working. The advantages—economies of purchasing and marketing. The factory purchases raw materials and sells its finished product in large quantities. It purchases its requirements wholesale and so gets them at a cheap rate. Similarly as it sells a large quantity of finished goods therefore its cost of marketing per article is small. If it advertises that advertisement will cost the same whether a large number of articles are sold thereby or only a small number is disposed off. In the former case the cost per article will be less. This enables a factory to advertise even with greater strength far and wide and increase its sales. It would not be possible for the small producer. The big manufacturers can advertise very widely, because even a small margin worked out on a large number of articles will mean large sums for advertisement, while the small artisan will have to charge a higher

margin for marketting to sell his goods properly. Thus both in purchasing raw materials and in selling his products he is better off and economises both in the cost of marketting and in that of purchasing.

More important than these are the economies of land, labour and capital effected in a factory. When different artisans are working at different places each requires a plot of land for his work, but if they are gathered together they occupy a smaller area. When one man works independently he requires a different set of instruments, but when working together one set may be sufficient for two. And with the introduction of the division of labour one set may be sufficient for many, for in this case one labourer will be doing only part of the work and will require only those instruments which relate to his work; and with those he will go on producing the whole day as he will have no other work to do. So one set will be sufficient for as many labourers as the parts into which the whole work is divided. The labour of collecting the goods from the small artisans for the central market will be saved. Inside the factory by adopting the division of labour the same work will be accomplished by a smaller number of labourers and thus there will be saving in all the three factors of production.

We should remember that the division of labour by incomplete processes is possible practically only in the case of a factory. In the case of an entrepreneur who distributes different parts of the work to be done at home by the artisans it can be at the most a division by complete processes, and it is not so productive as in a factory, for there the considerations of the cost of collecting the finished work will stand in the way of the division of a work into a large

number of incomplete processes. So full advantage of the division of labour can be derived only at the factory stage of production. The result of these advantages will be increased output of goods from the factory. It is here that an improved organisation of land, labour and capital brought together in a factory contributes to an increase in the production. Improvements in this organisation brought about by the introduction of machinery and large scale production further increase the total output under the operation of the law of increasing returns.

This increased production will be sold at cheap prices. The factory producer will be able to afford to do this for two reasons. Firstly he makes many economies and his cost of production per article is reduced by the adoption of the division of labour. Secondly the factory producer can afford to sell his goods at a smaller margin of profit than a small artisan can; for him that small margin obtained on a large number of articles will mean a substantial sum, while for the artisan a higher margin is necessary to keep him going.

The increased industrial prosperity is reflected in a general rise of the standard of life. The cheaper goods can now be purchased by persons of ordinary means and what were previously luxuries gradually become articles of every day use; the labourers also cannot remain unaffected. Their wages are likely to be raised, and by coming in contact with the city life their mode of living is likely to be changed. The peace and contentment of the village life might be lost, but the amenities of the city life are added. This higher standard of life encourages the arts. It has another effect. It increases the wants and with this increase there will

Progress of civilisation. be a greater effort to satisfy them, and man will acquire greater mastery over nature. Thus the progress of arts and of man's power over nature will keep civilisation on the onward march.

But with these advantages there are some serious disadvantages as well. They may be classed mainly into two classes, those concerned with labour and those connected with production. In the first class are the introduction of night work, female and child labour, class conflicts and crowding of labour. The reason of these disadvantages is that in this stage of production in the pursuit of wealth the scientific truth is forgotten that labour is also the ultimate consumer for whose benefit wealth is produced, and so an attempt is made to extract as much work from him with as little cost as possible. We have seen that in the division of labour the work is divided into various parts which are suitable for persons of different strength, in which all labourers weak and strong can find work. While this is good in giving work even to those who are not very strong, it has also had a very undesirable effect in making child and female labour possible. Thus child and female labour now would compete with adult male labour for the easier processes of production as this labour will be available at a small cost. The chief earner of the family is the male head, and if the children or their mothers earn anything that earning is supplementary, and so they would be willing to work on low wages to supplement the male adult's earnings as much as possible. But this has several injurious effects. In the first place it drives out other adult labour which would be otherwise employed; and so by decreasing the demand for that adult labour it

lowers their rate of wages, thus harming their own men. Secondly child labour stunts the growth of the child ; female labour destroys healthy family life. "The mother does not get time to look after the home, and is besides exposed to the immoral influences of a factory. These evils are heightened in case of night work. The machines can go on working at all times, they will not complain like living labour, and so by arranging parties of workmen, or 'shifts' as they are called, they can be worked at night also. Night work is more tiresome than the day work is, while it is altogether undesirable in the case of children and women whose night labour is now-a-days often forbidden by law. But in old days it was not so. The hours of work were so large that the labour was said to be "sweated" or in other words the last ounce of energy was extracted. But now law has fixed these hours which are generally 8 hours a day for adult labour.

Dependence of labour. These difficulties have been due, as said before to the fact that labour has got no reserve and cannot do without work for a long time, and so is at the mercy of the employer. To justify this system the cry of 'laissez faire' or free competition was raised. It was asserted that economic principles so far as they are natural can work out only if they are allowed to work freely, and no artificial check or interference should be allowed, or a system of free competition must be maintained, for then alone could all the economic forces come into proper play. Everybody is careful of his interests ; if the labourers are at a disadvantage in a bargain they will demand higher wages and the employers will not be able to resist as they will lose the profits of the trade otherwise. But now it has been recognised that laissez faire

should not mean free competition but equal competition and equal opportunity. If one of the parties to a bargain is naturally at a disadvantage there can be no free bargaining between them, and to ensure this free bargaining it is necessary to remove that disadvantage. Such restriction as removes this disadvantage will not be against the doctrine of laissez faire but would rather be the means of bringing it into full play.

Moreover from the point of view of the working
 of natural forces the natural result
 Class conflict. has manifested itself in class conflicts.
 "The doctrine of selfish interests has had its say.
 "The two conflicting interests of the employer and
 the labourer have ranged them into two opposite
 camps, but a society so divided cannot be said to be
 in a state of equilibrium or stable organisation. It is
 an abnormal condition hiding some other vast change
 in its womb. It indicates that there has been
 mistake somewhere, and evidently it has been in
 the wrong interpretation of the doctrine of laissez
 faire, an interpretation contrary to human welfare which
 is the object of human activities studied by the science
 of Economics. The interpretation was due to the
 old emphasis upon wealth, and the fact that the
 factories increased production of wealth was consi-
 dered to be a proof of the contention that free com-
 petition allows the economic forces to work properly.
 Now the class conflicts prove as conclusively that
 the forces by wrongly working have made the condition
 of society abnormal and unstable. It may be said to
 have been of service in this way that by producing
 this conflict as a natural result of the old principle
 of free competition it has opened our eyes to its
 defects and fallacies. In obedience to this principle
 of guarding one's own interests labour has replied
 with trade unions and other labour movements which

will be studied later. Their general principles may be noticed here. Labour was at a disadvantage in its bargain with the employer for two reasons : (1) a labourer has no reserve and so cannot afford to remain without work for a long time (2) a labourer settling his wages individually suffered from the competition of other labourers, and it was easy for the employer to get another labourer. This is sought to be remedied by the trade union movement in two ways. The reserve is provided by the union funds in case the labourers are unemployed because they refuse to work on the unfavourable terms offered by the employers, in other words when they are on a strike. Secondly instead of the individual bargain is substituted the collective bargain of all the united labourers who are members of the union. The same wage must be paid to all, and if it is small they will all strike work. The trade union looks after their interests in this respect. This movement had at first to fight very much for its rights of combination and the influential employers put all obstacles in its way. It is a long tale well worthy of detailed study and there is a good deal of literature on the subject available. The method of strike employed by the trade union to enforce its demands is sometimes effective while at others it proves injurious. Even in case of success it causes a loss to the nation of that increased wealth which would have been obtained if the work had not been stopped by the strike, and naturally these strikes, if well planned, occur at a time when the employers have large orders to supply so that the stoppage of work is rather inconvenient to them also. Where the strike is declared at a time of depression in an industry it causes unnecessary loss and also endangers its own chances of success. But the perception of this national loss has brought other

methods of reconciling labour and capital into the field, the chief of which is that of arbitration between the employer and the union in case of dispute by an officially appointed board, or relieving the distress of labour by systems of cooperation, profit sharing and schemes of insurances which would better be studied at a later stage.

Another great defect of the factory system is that it encourages the labourers to leave their village homes and crowd near the factory. This congestion of the labour population has many evils social, moral and economic. As has been noticed on a former occasion congested life makes man inefficient as it does not conduce to physical and mental health as open air life does. Makes inefficient. It is specially so when the worker's nerves are strained by hard work during the day. On leaving work he desires some pleasant excitement and runs to the drinking, gambling and immorality. the gambling house or the ale shop. This makes him inefficient, quarrelsome and demoralised. The congested life, besides, by its too close contact induces immorality, and the general atmosphere is rather excited and abnormal, quite foreign to the peaceful life of the country. The collection of such an excitable and inflammable material is a standing danger to the peace of society, besides its influence in the Social evils. moral deterioration of a large part of the community is great. These defects are sought now-a-days—when the importance of working for the welfare of the labourer is slowly dawning on the social mind—to be removed by the establishment of tea shops, sporting clubs, cinemas, libraries and schools for the benefit of the labourers. In these matters India is still very backward. In

Europe the employers and the government combine to provide a better life for the labour. There are various insurances, the unemployment insurance, the accident insurance, old age insurance and the maternity benefits—to provide for a labourer in cases of unemployment or suffering some accident, or becoming old, and in the case of women to provide for their expenses during the period of child birth. In India the Government has not yet recognised its responsibility in these matters fully.

There is another very great disadvantage of the factory system and this is the possibility of overproduction. We shall study this phenomenon in detail in economic crises, but here its two chief causes may be stated. They are the loss of the contact of the consumer and the producer, which increases the possibility of miscalculating the demand of a distant market and so of producing in excess of the needs. The other cause is the non-regulation of the number of producers in an industry. In the village system the conditions of the demand and supply were apparent and so any new enthusiast could easily calculate the prospects of his success. In the guild system the admission of the new members was strictly regulated. But under the influence of the old doctrine of free-competition this regulation could not be maintained. Now any person may engage in any work he likes, and the prospects he studies by the general market conditions, the rate of profits realised, and the price of the products ruling at the time. But these may be specially good at a time for some temporary reason. At such times a boom of company making occurs to be followed by a crash when the normal conditions return. Or even if the good conditions are not temporary there may be others also entering the same profession ultimately

tending to make the supply greater than the demand. This is an incalculable factor. Nobody can always be sure as to how much production is being prepared by others and what will be the final conditions. These factors have made overproduction a peculiar feature of the factory system.

CHAPTER X

INTRODUCTION OF MACHINERY.

The division of labour by dividing the work into simple operations makes it easy to adopt the use of machinery as that simple operation can be performed automatically by a well designed machine much more rapidly than by a labourer. The resulting introduction of machinery generally increases the intensity of the advantages and disadvantages of the factory system. The economies of working are greater, the output is greater and is produced at a cheaper cost. On the other hand the increase in the size of the works requires a larger labour force and the evils of crowding become intensified. Overproduction also becomes more possible than before, for now to the other causes that of rapid production is added.

Industrial production has been revolutionised by the invention of the steam engine. Special effects. It has made the introduction of huge machines possible which it would have been impossible to work with human labour. On production. Steam, we have seen, may be used anywhere and in any industry in which the proper machinery can be adopted. It has Use of power. increased the productive power of labour attending to the steam engine immensely. Now other forms of power also are coming into use. With the use of machinery the use of some kind of power to move those machines automatically becomes indispensable. Power moves the machinery rapidly and regularly and moves many machines at the same

time, the work of the labourer remaining to be merely the attending to the proper working of the machine or feeding it with the raw material.

Another great effect of machine production is the standardisation of the articles. All things produced by the machine will be of the same form. This has led to the system of interchangeable parts. If a part of anything, say a watch, a cycle, a motor and so on, is lost or broken, another of the same kind can be fitted in and it will fit exactly. In wholesale purchases a sample is likely to be of the same kind as the mass of goods produced and so the purchaser has got a greater assurance of getting the proper kind of thing. Indeed even now if there is a difference between the sample and the goods supplied it is in the points which depend upon the labour of man, say the quality of raw material used. Otherwise so far as the machine is concerned it goes on turning out the same standard kind of thing.

The same characteristic ensures a better finish of the products as what is done is done uniformly, and the vagaries of the human hand are absent. It is true that extremely delicate working possible in human labour may not be possible in machinery, but so great a delicacy is not required in ordinary production, and actually a very high degree of finish is attained, which is more beautiful on account of its smooth uniformity.

Not only is the quality of the product improved, but its quantity also is very greatly increased. A machine works much more rapidly than human labour when worked by some power like steam and electricity. It turns out huge quantities of goods in a short time. When the produce is large the cost

per article will naturally be cheaper than when the produce is small. Labour is more expensive than steam or other power. So while the cost is lowered the output is increased and the cost of production becomes lower. It should be noticed that this is a result of an improvement in the organisation or of a new adjustment of labour and capital, in which labour is decreased and capital has increased in a more productive form. It is due to this capacity of man to improve the organisation of hand labour and capital in the process of production that the law of increasing returns acts in manufacturing industries. But while production is increased and cheapened the

Chances of
overproduc-
tion increased.

chances of overproduction also are increased, because the rapidity of production increases production in so short a time that a large quantity of goods may be on our hands even before we have time to take warning and stop. Moreover there is such a huge capital invested in making big machines that the entrepreneur does not like it to remain idle and lose interest, and so he tries to work it as long as he can. This disinclination to stop may find him with a huge quantity of goods before he has had time to realise the inadvisability of his action.

The effect of machinery on capital has been to enable capital to be used in undertaking great works which could not have been done with hand labour. It has also increased the quantity of capital. It should be remembered that one of the conditions of the increase of capital was a capacity to save. This capacity is increased with the increase of wealth, and the introduction of machinery has undoubtedly increased the wealth of the community by increasing the production of wealth. The success of machinery in one branch of production has induced its adoption

in other branches and has led to an increase not only in the quantity but also in the diversity of the forms of capital used.

The effect of machinery on labour is no less striking. Besides generally intensifying

On labour. the effects of the factory system on labour it has some special effects also.

One of the defects of the division of labour was that

Change of it taught the labourer only one kind
work easy. of operation, and so made it difficult
for him to take to any other profession,

but the use of machinery has made this change easy. All that a labourer has to do now is to attend to the machines and to feed the raw material, and though the method of doing this may be different in different machines but the principles are the same, and the actual detail of the method may be easily learnt. No great practice for acquiring skill is required as it is necessary in the case of work produced with hand labour.

The strain of the work also is not so great, for all

Less strain that the labourer has to do is to attend
and monotony. to the machine keeping a kind of
supervision over its work ; nor is the
work so monotonous as it was before.

For instance the uninteresting work of folding papers

Intelligence in the printing industry can now be
sharpened. done with the machine. Indeed at-
tending a machine rather sharpens the

intelligence, and a person who works with a machine is likely to be brighter than a person who works with primitive tools. Moreover this decrease of strain allows a scope for the weaker labourers to be well employed. Different kinds of operations are able to provide work for labour of various degrees of

efficiency from the hardy fire men to small boys.

Rapid work and large wages. The increased production enables the labourers also to get higher wages. As the capitalist is in a position to allow such increase in wages from

his own increased proceeds the labourers do not remain quite unaffected by the general increase in the wealth of the community.

But there are certain great disadvantages also to labour. There can be no disadvantage

Disadvantages- strain of machine room and unemployment. in connection with capital as the machine itself is a highly productive form of capital, but on labour it has a very injurious affect as it displaces labour. So far as it increases the

production without engaging as many labourers it displaces a number of the labourers who would otherwise have been occupied in producing the quantity of goods. There is a competition between labour power and machine worked with other kinds of power. Machine and physical powers being non-living they cannot do altogether without labour, which must be there to work these machines, but they do undoubtedly reduce the amount of labour required for a given amount of produce. It is said that this displaced labour will be absorbed in various ways. It will be required in making the machines themselves. The machine made articles being cheap will sell in larger quantities, and this increase in their demand will require larger supplies than before thus absorbing displaced labour. Further, the cheapening of these things will leave a larger margin of income with the purchasers to be spent on other objects, the demand for which will increase, and their production will as well absorb more labour. But even in all these ways all the labour displaced is not

absorbed and unemployment has become a peculiar feature of the present industrial organisation. Another great defect is the strain of the machine room. Although there is less strain in the actual productive operation but the very presence in the machine room puts a strain upon the nerves. The huge din of the machines working, the powerful vibrations set up, all tax the body. This is why inspite of the fact that the strain of the productive operation is less than before the labourer does not appear to be very fresh and happy when he comes out of the factory.

CHAPTER XI.

LARGE-SCALE PRODUCTION.

We have discussed the principle that in manufacturing industries the improvement in organisation effected by man increases the returns and so the profits. Larger profits enable the entrepreneur to widen his activities, secure further markets and increase the size of his business.

Causes of Development. The tendencies of concentration and integration. These in turn increase his profits even more leading to a further expansion of his business. This tendency is increased by the use of machinery. When a business aims at producing large quantities of goods for wide markets by properly organising large amounts of capital with a great labour force into a large business it is large-scale production as against the small producer, who produces mostly for the local market. This tendency to the concentration of large amounts of labour and capital is sometimes termed the "law of concentration." Another related tendency that manifests itself as a result of large scale production is that of integration of industry, *i. e.* the performance of all steps of production under one control. For instance the same organisation may work cotton from ginning or even growing to weaving it into cloth. This is possible because the large resources of the big producer make it economical that he should do all these things himself.

The law of increasing returns combined with the increasing sphere of the market brought about by the development of communications is the chief cause of the

What are markets.

development of large-scale production. By a market is understood either the place where the purchasers and sellers gather together to do business—this is better named “market-place”—or that sphere of transactions in a commodity in which nearly the same price of the commodity is maintained excepting for the cost of freight and transit. Thus if the price of wheat is the same all over the world except that in places at a distance from the places where wheat is grown the cost of transit is added to the original price, then the whole world is said to be one market for wheat or wheat is said to have a world market. If this condition is fulfilled for a commodity only in

Importance of
communications.

respect of one country then that commodity has a national market in that country. It is obvious that such a market can develop only with the development of communications which make it easy to move goods from one place to another, so that if the price in one part of the land is higher than in the other, then goods from the other parts may run to that part, and may bring down the price by increasing the supply. A perfect market or a market in which this condition of one price at all times obtains is not practicable, but still if markets do not suffer from artificial restrictions on the movement of goods, and the communications are good then a perfect market is developed as nearly as it possibly can. It is the development of communications which enables a producer to know what is wanted in other parts of the world and to send his goods there to satisfy that want. So this is the reason why in the modern days the immense progress of railways and telegraph have helped to increase the size of industrial concerns.

And of extensive markets.

Extension of markets increases the demand for goods

and makes it profitable to produce them in large quantities. Merely producing, without the goods being absorbed or sold, would cause loss to the producer. Therefore he will produce more only when the demand is great or the market for his goods is extensive.

But while the increase in the size of producing concerns has been phenomenal there are certain limitations also to this increase and to their spread in all the branches of production. The first limitation is the extent of the market. There are certain things which have a very wide market, while there are others whose markets are not so large. As a rule the primary necessities of life, like food, grains and cloth, or of commerce and industry generally, as gold, coal, iron, have the widest possible markets. There are other things mostly articles of luxury which the privileged few can afford to buy have a narrow market *e. g.* gramophones. It is so also in the case of perishable articles which can, for this reason, command only the local market, *e. g.* vegetables, fruits, and a "halwai's goods." The size of the business will be limited by the amount of product which the business can hope to sell in the existing conditions of the market.

In actual experience it is found that even with the economies of the law of increasing returns there comes a point in the increase of a business beyond which these economies become negligible, and so it does not pay to increase it further; this point is technically termed the point of optimum. The production at this point would be marginal production.

Even where the market is world-wide the action of the law of diminishing returns will set a limit as

in the case of agriculture and minerals.
 Law of Diminishing returns. In connection with any particular mine or farm this law will set a limit beyond which it is not safe to go, and if this limit is overstepped then the cost of production becomes greater than the prices expected to be obtained for that production. Therefore no producer will go beyond that point. This is the reason, why while in the manufacturing industries the small producer is being squeezed out, in industries like agriculture the small producer thrives side by side with the large one, for the latter's lands also produce nearly at the same cost.

Another limit to the increase in the size of a business is set by the necessities of personal attention. personal attention and supervision. It is not necessary in all trades, but it is necessary in the case of those where personal tastes have to be attended to, or delicate workmanship is required *e. g.* a goldsmith, a tailor. A tailor must attend to the needs of his customers personally so as to make clothes for them fitting to their body. If he is a wholesale clothier he may have a stock of ready made things, but they may not suit all tastes or all bodies. The goldsmith's work can not be done by a machine, for variety and delicacy is the very essence of his trade. Where such personal supervision is required the business must remain within such limits of the size that the supervision may remain effective.

The other limitation, the capacity of the entrepreneur, is easily intelligible. If the Capacity of the entrepreneur. organiser is incapable the adjustment of labour, capital and land will be defective, and so there will be a waste of some factor of production and a scarcity of the other thus increasing the cost of production and leading the business to

ruin. The capacity of the entrepreneur is the thing upon which every thing depends, for the law of increasing returns acts only where the mind of man is able to make improvements in the organisation, and so this capacity of mind of the organiser and entrepreneur is the first necessity for the development of the business.

The availability of the raw materials or their substitutes may set another limit to the increase of business. The increase may also be stopped by governmental interference as it does in the case of regulations discouraging the formation of large trusts and monopolies.

The advantages of large-scale production are immense. Indeed they are so great that they leave practically no chance to the small producer in competition. The large scale producer is able to produce and sell his goods at such a low cost, that the small producer can scarcely ever expect to stand against him in this respect, and the reason is that various kinds of economies are effected in the large-scale production. In purchasing raw materials for his business he makes a saving, because he purchases in huge quantities and so gets them at a lower price. In the same way when he sells he sells wholesale and clears his stock very soon. His capital formerly locked up in that stock is released, and with this released capital he again produces and fills up his stock which is again sold. He makes a number of turn overs of the same amount of capital, and so a small amount of profit is sufficient to give him good profits, because this small margin is earned on a large number of products several times in a given

period of time. Thus this wholesale selling enables him to earn more by making several turn overs. This is not so easily possible for the small producer whose production is not great, and who charges a higher margin of profit per article, and whose larger cost

and more limited market do not allow him to effect speedy turn overs. As

Advertising
and marketing.

the large producer has a large number of goods to sell of different kinds the cost of advertising and marketing per article is not large, and once he establishes himself in the market even the necessity of advertisement is not so great. His

goods advertise themselves. Then there are the economies of land, labour and capital.

labour and capital. The saving of labour in the supervising and clerical staff is quite natural. The same person

in a small firm would have remained idle for some time for lack of work but his salary would have been an equal charge on the small producer also. In

the large-scale business all are kept fully occupied because the work to be done is sufficient, and so there is no loss of labour in loitering or idling about.

Then the variety of work enables the organiser to place the right man in the right place and avoid a waste of energy by employing efficient man at some petty work. The same office can do for a larger

business and so proportionately smaller area of land is used for the large scale business. The labour also is grouped methodically avoiding a waste in the

Power.

occupation of land. There is an economy of capital and power, because in the large-scale work, the work being great all capital and all power used is fully employed and as much work is extracted out of it as is possible. In the

small business the engine might be of a higher

power than that required for the existing machines and in such circumstances there would be a waste of power. This can not be so in large scale production.

There are other important economies made by the utilization of the waste products and by doing the auxiliary works. The small producer has not got sufficient means to utilize the waste products himself, and as his production is not large his waste products are not likely to be released in large quantities, and so those big producers who use those waste products will not come to him but will rather go to the large producer from whom they can get large quantities of that waste product quite fresh at wholesale prices. Thus the big producer will be able to make a saving by selling that waste-product or by using it himself. Similarly in the case of auxiliary works the big producer can undertake them himself. Auxiliary works If he requires labels, pamphlets, stationery, posters and other printed material, his work in this department is large enough to support a press, so he may have his own press instead of giving the work to other presses. This will save him something in the cost of printing. The small producer cannot do so because neither is his work so great as to keep a press occupied nor he has resources enough to undertake such allied work also. As has been noted above this tendency to take up the auxiliary works is technically termed the integration of industry.

In a large scale business the division of labour can be extended to a greater extent than it can be in a small works, and the division of the work can be made into a larger number of parts. The reason is that in the large works, the work to be done

is so great that even though the labourer has got to do a very slight operation still his whole day will be taken up in repeating that operation for innumerable times. In the small-scale production if the operation be equally small the whole work of that operation may be finished very soon and the labourer may have nothing to do. So there the work of each labourer is likely to be of a larger duration and the division into parts cannot be so great.

The resources of a large-scale producer are greater than those of a small producer and so he is not handicapped in organising his business by a lack of funds. He can employ the ablest managers, can use the most up-to-date machinery, can advertise widely, secure orders from all quarters and put up a very efficient organisation. His improved methods of work, his immense

Cheapening costs. economies all enable him to produce at a cheapening cost and sell his goods at an advantage in the markets, giving the consumer cheap goods and at the same time realising large profits for himself. His great resources

Possibility of improvements. enable him to make experiments in improving the methods of his production or making improvements in the machinery used. He is able to afford this because even a slight improvement will decrease the cost, though slightly, of so many goods that the total saving will be great, and will in the long run more than compensate him. He can engage chemists for his research laboratories, but a small producer cannot afford to do this. He has not the funds, and if he had he has not enough work from which to draw out the return.

Another very great advantage of large-scale production is that a large producer can afford

Variety of goods. to produce a variety of goods, so that if the demand for one becomes slack those for others will enable his work to go on. Moreover the purchaser will have a wider choice ; he will rather come to him than go to a small producer, and having once come is likely to find something or other to suit his taste. Thus the large producer will effect larger sales. The small producer cannot afford to apply his small capital in a number of goods for then he will not be able to produce them in sufficient quantities, and if any one variety is not taken his capital will be inconveniently locked up in it. Consequently ordinary market fluctuations do not affect a large business very much. Moreover the manager being expert and well-informed will make better calculations than an isolated small producer can do.

Better conditions for labour. The large producer does not benefit only himself by larger profits, and the consumer by cheaper products, but he can also benefit labour by providing better conditions of life for his workers, *e. g.* by establishing recreation clubs, cinemas, schools, libraries, provision shops, tea shops. He can institute systems of accidents assurance, old age insurance, maternity benefits in his works, because he makes large profits and large savings. In case of specially good years, he can give bonuses to the labourers. An example where such amenities of civilised life are provided is in Jamshedpur. But a small producer cannot afford to do so much. He cannot afford to pay even as high wages as a large producer can do.

But if the advantages are great, the disadvantages also are as great. The first is that large-scale production tends to eliminate competition. The posi-

Disadvantages. tion of a large producer is so advant-
elimination of ageous in comparison with a small
competition. producer that the latter has simply no

chance in the competition and so he is driven out of the field. Besides the fair competition the large producer sometimes adopts even questionable methods to crush out his smaller rival. The large producer is producing many kinds of goods, say A. B. C., and is selling them in various markets of the world, say H. P. T. If X in P competes with him in goods A then he can reduce the price of the goods A in the country P even below the cost of production and recoup himself by increasing slightly the prices of his goods B. and C. in the countries H. P. T. and of A in H. and T. So while the large producer will lose nothing poor X will be ruined and will give up the business, and then the large producer also will restore the old prices. Thus healthy competition will tend to be eliminated. The advantage of competition is that

Advantage of each producer tries to lower the price
competition. as much as he can, and for this purpose he makes greater economies in

his methods of production ; any waste of energy is prevented and the goods are available at cheap prices to the consumers. One might think that even the large-producer himself sells his goods at a cheap rate as he produces them at a cheap cost. But in practice it has not been found to be always the case.

When the large-producer expels all competitors it becomes possible for him to realise

Monopoly prices. monopoly prices. When there are no competitors to fear them all that he has to fear is that the price may not be so high as to induce the users of the goods themselves to give up using his products and so cause him loss. Consequently he

will fix the price at such a point that although giving him a high margin of profit it will not reduce the consumption so much as to lower his profits, but will yield the greatest possible total of profits. If the commodity has an inelastic demand he can safely increase the price; but raising the price too high may induce other competitors to join the industry, or the state may interfere in the interests of the consumers. The price will be that which will give him the greatest profit and which the "market can bear", any increase above which will disturb the market for that commodity. If the production of the commodity follows the law of increasing returns it may often be profitable to sell at a lower than the competition prices so as to increase the demand and thereby increase the production. In such a case the public sympathy as well will be secured and there will be no danger of

Tendency to
trusts.

state interference. This is helped by the tendency of large scale production to develop into trusts. When a large producer makes the matters hot for another producer, that other producer may come to him and may save himself by offering to incorporate his business into the larger one. Or when there remain a few very large producers in the market of a certain commodity they might realise that competition between them

Condition
favouring
formation of
trusts and
combinations.

does not help any of them, and so they may unite and form one giant business. This is called a kartel, trust, pool, corner, ring, combine, syndicate, or corporation. The combination has been made possible by the development of the large-scale production, because this system concentrates the work into the hands of a few producers who find it easy to negotiate and combine. It would not have been so easy in the case of small producers as their num-

ber would have been so large that to unite their small businesses into one would not have been an easy task, and nor would such a combination have suggested itself to all of them. Besides concentration in single hands, whether by natural growth or the elimination of competitors, other conditions that favour combinations are localisation of industry, standardisation of the product, scarcity of the article and fiscal protection. In the first case the close association makes combination easy; in the second the standardisation makes the control of a very large output possible. If the product is scarce it is easy to corner and monopolise it, and fiscal protection affords an opportunity to develop the business. A modern trust works in many countries, has an immense power in the markets of the world and even enjoys a great political influence because of the resources in its power. This influence and power is often detrimental to society and sometimes legal checks to the development of trusts prove to be of some use.

But often such laws are found to be ineffective, and the means of evading them are easily discovered. In such a case it proves very useful if an investigation is held into the affairs of a combination and its methods are made public. The public opinion and the danger of losing public sympathy sometimes act as very efficient checks. For this purpose a state investigation board may be established with full power to enquire into the affairs of any concern which they suspect to be using unfair methods.

Sometimes the ways adopted by these trusts and combines of eliminating competitors are undoubtedly questionable; a trust may open a shop in the place where

Control by
investigation
publicity.

Questionable
methods.

a competitor works only to undersell him. It maintains a price even below the prime costs till the competitor is crushed, and then the price is raised again. When the market in a country has to be captured the trust will dump its goods into that country even below cost price. For this loss it will compensate itself by increasing the price of its products in other countries where it may be working. Or it may decrease the price of one product to push it in the beginning and recoup itself by increasing that of another article of its trade. It makes tying agreements with retail sellers forbidding them to sell the goods of any other producer, and if the retail sellers do not agree then it stops their supplies of its products and undersells them by getting another shop opened near the shop of the offending retailer.

Transport services frequently have a monopoly of their route. Where they do not possess it they attack their competitors in similar ways. Thus a railway may issue tickets between two through stations at a cheaper rate than the rate charged for intermediate stations. A competition exists in India between the G. I. P. Ry. and the B. B. and C. I. Ry. both of which serve Delhi and Bombay. Shipping companies often pay "deferred rebates." They insist on their customers not using any other shipping except that of the combine and if at the end of a certain period it is found that the customer has kept his agreement then they allow him a certain commission on the work given by him. It is called deferred because its payment is postponed till the customer proves his loyalty.

They often quote cheaper rates to powerful customers than the usual ones lest any other firm be encouraged by his custom. And in all these ways when competition is crushed the monopoly price comes into play. However, it is not always that a monopoly is harmful to the consumer, it may sometimes be actually beneficial. The monopoly price may even be lower than the competitive price previously ruling. Now one business produces as much as many of them produced before, and this increase of production under a single organization will increase economies of production, and may make even the monopoly price lower than before. Another benefit that will accrue to the consumer will be in the publicity of the price. Ordinarily it happens that even when wholesale prices have gone down the retail prices remain the same, because the producers are so many that it is difficult to know what they are all doing early enough to affect the retail prices. But when one concern controls the industry its prices will be standard and well known.

Monopolies may arise either by natural growth, the business growing gradually till it controls the whole production, or it may be a natural monopoly or it may have grown into such a one by amalgamation of the competing concerns. It has been found in experience that such voluntary combinations are not so vigorous as the natural ones are. In the amalgamations there is often a watering of capital. The promoters purchase the concerns at a cheap price but sell them to the amalgamation at a much higher one. Their profit

so obtained does not represent any actual capital possessed by the concern and the funds so paid to the promoter become a burden on the revenues of the combine. Such an amalgamation is an external combination and not an internal growth and so is not so virile.

A combine is horizontal when the participating firms are engaged in the same branch of an industry, and it is said to be a vertical one when all the processes of an industry, which would otherwise have been divided into several separate industries, are controlled.

These trusts and combines are of various degrees of coherence. A trust is a complete amalgamation of several businesses, while a kartel is only a combination for apportioning markets the individual businesses retaining their separate identity.

Rings, pools, corners, and combines are temporary combinations for specific purposes. When a business becomes so big as practically to control the whole

produce in a particular industry it is called a monopoly. Monopoly is "natural" when it is due to some natural cause, as when a commodity is produced in a particular country only as jute in India or diamonds in South Africa. Copyright, patents are cases of legal monopolies as these rights are conferred by law. Gas works, water-works are examples of social monopolies as the society grants these monopolistic rights for its own convenience, as it would be very inconvenient to a municipality to have water or gas supplied by several concerns. Ordinary monopolistic concerns formed by amalgamation or the increase of the size of a business are termed voluntary monopolies.

In practice, however, perfect monopolies are a rarity

unless the rights are conferred by law.

With all these advantages this huge increase of capital has one serious disadvantage. It makes it difficult to adjust production to the needs of the market properly. The capital involved is locked up in such form that it is not easily realisable at a short notice, and if it cannot be brought out it cannot be left idle also, as this means a great loss of interest. The result is that the producer goes on producing even though the market may not be requiring his goods. He may thus cause overproduction. It may sometime even become difficult to adopt up-to-date methods on account of the loss likely to be incurred on the change of the costly machinery. Nor is it easy to change the application of the machinery to another kind of production. All these things make the adjustment of production to the needs of the society difficult.

Large scale production is an extension of the wage system and the factory. It is no new system. So the evils of crowding labour which we noticed previously are intensified. The problems of labour also increase. Although a large producer is able to supply better conditions of life still the inequality between the wealth of the labourers and the capitalist is increased and the class-conflict is not decreased, but is rather more intense than before. The fact of a huge business being concentrated into a few hands makes labour classes press the government of their country to confiscate it and work it for the benefit of the whole society under government management. The class division becomes even more distinct.

At the same time the increased use of machinery and the element of over production, makes the problem of the unemployment

of labour much more acute than ever before.

Amongst the social evils, besides those of congestion which mean unhealthy life, an increase of crime and immorality, and the existence of an inflammable material threatening the peace of the society, this development of production has also produced an increased materialisation of life. The idealism of old days is not in vogue. Everybody is after wealth and material comforts, and the anxiety about the moral and spiritual welfare has practically disappeared. There has been an ignoring of the principle, which has been pressed so many times above, that wealth is produced for the consumption of man, that labour is at once an agent of production as well as the object for whose benefit wealth is produced. Consequently no system of production can be said to be a proper one which ignores this truth, and a system which develops a man's materialism at the expense of his ideals and moral nature cannot be said to develop his personality or to really make his life happy. for after all wealth is not the only thing which pleases man. The delight of moral practice, the transports of idealism also supply a necessary want of his nature. It is his idealism which makes him a man from a brute and surely this great unthinking rush after wealth does not encourage these higher tendencies very much.

ECONOMIC CRISIS.

When the normal economic life of a community is disturbed and becomes impossible there is said to be a crisis in that life, and is called an economic crisis. It occurs in one branch of the life but its effects tend to spread themselves over the whole sphere of human activities. Such a crisis occurs when the normal adjustment of the various component

parts of economic activities is thrown into disorder. This happens when there is a glut or scarcity either of a thing produced, or of a factor of production or of money, *i. e.*, when there is no adjustment of the result of economic activities with the purpose of those activities or in other words when the productive activities have been more or less than they should have been, or when the factors of production are in disproportion and so production cannot be properly arranged, or when the general means of measuring the value of things is thrown out of gear. Let us examine in detail what happens. If there is over-

Glut or scarcity of production.	production say in cloth manufacture then stocks of cloth will be on hand, their value becomes lower because there is excess of cloth and purchasers are few so the sellers sell cheap. Because the
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Glut.	price is low the manufacturers will dispense with a certain number of labourers, because they have ready made cloth in a large quantity and they find it difficult to sell, so they will not produce more. These discharged labourers will not receive their wages now, and so will not be able to purchase many things which they used to purchase, for now they have a little money and that is necessary to buy their food. This will affect those traders and manu- facturers who dealt in those goods which the labourers used to purchase. Their goods also will not be sold because the labourers do not buy. The manufacturers of those goods will also stop production and will discharge their labourers who will again stop pur- chasing their goods which they formerly used to take and the disturbance will spread to the producers of those goods also. And thus the disturbance will go increasing. The discharged labourers previously used the services of others and if they discontinue the
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use of those services then the disturbance will go on increasing in that side as well. It will thus tend to spread over the whole community. The production activities in cloth have been greater than the needs and so they have to be stopped stopping with them also the other parts of productive activities which were going on in adjustment with them just as if one part of a machine is thrown into disorder the whole is stopped.

Similar results follow from a scarcity say of cloth.

Scarcity or
famines.

This will mean that those who use cloth should now use a larger proportion of their income in purchasing cloth, for the price of cloth rises when it is not found in the market in plenty. If the larger proportion of income is spent over cloth the proportion spent on other things will become less, and the sale of those other things will become small, and there will be an excess of production in those other things leading to the same results as before. The case of famines are clear examples. Because of scarcity of food people are unable to support themselves properly as prices become higher than what they can easily pay. If they pay at the cost of other things the distress spreads to those things also.

Similar results will follow a glut or scarcity of a factor of production. Capital has

Glut or scarcity
of a factor of
production.

increased so much that it cannot be profitably used, and cannot be properly adjusted to labour and land. still it will not like to remain idle. The capitalist will be willing to lend it to organisers of industry at a cheap rate. The organiser may be induced to take it up on account of the favourable opportunity afforded by cheap capital. Many new companies will be started, but in reality those companies are not wanted; there is not

sufficient labour and land to absorb that capital in production. If the new companies still draw labour to themselves they will draw it out from other industries. They will create difficulties for those industries while they themselves will be producing something in excess of requirements. There will again be over-production in one branch and scarcity in the other throwing the whole machinery out of order. If there be excess of labour then it will mean the discharge of a certain amount of labour with similar effects. If there is scarcity of labour it will mean comparative excess of capital seeking employment. The scarcity or excess of land, however, is not a very disturbing factor, because the area of land is already limited and is well known and so it will not suddenly upset calculations. But there can be a glut or scarcity of the product of land, agricultural or mineral, and that may cause a crisis as in the case of famines. Similarly the fourth factor, organisation does not affect this problem excepting in two ways: one that a defective organisation owing to a non-adjustment of the factors of production may contribute to the crash, but here it is the nonadjustment of labour and capital and not excess or scarcity of organisation; secondly there may be an excess or scarcity of organising labour or the labour of those who can organise business, here again it is the question of a kind of labour being in excess or otherwise and its effects.

Then even an excess or scarcity of money may cause a crisis. When money is scarce
 Glut or scarcity of money. the rate of interest for bank loans is very high, there is a financial crisis, because there is not enough money to carry on trade. If trade suffers the production also suffers. If goods cannot be sold the producers suffers and there is a

kind of over-production. If on the other hand there is an excess of money *i. e.*, it is more than is required than it runs about seeking employment and work, raising prices and having the effect of an excess of capital. It should be remembered that the economic disturbance caused by any of the above forces becomes a crisis when it is sufficiently advanced to dislocate the machinery of industry and trade causing a general distress. Such a crisis results in the stopping of work by factories, failure of firms and banks, which again in turn increase the distress.

Indeed nowadays the immense structure of credit facilities has made a financial crisis the usual form of an economic crisis.

When trade is brisk and prices are rising every one has a confidence in future and tries to reap the advantage of the rising tide of trade. Confidence brings the capital out. Credit facilities increase. Banks also are willing to advance. The investing fever rises. The prices and wages both rise. Soon, however, the signs of a fall appear. An excess of speculation makes people anxious. Money begins to be scarce. The banks begin calling in their loans and credit begins to shrink. Even before the new industries have had time to establish themselves they are faced with demands for payment. Some are unable to meet their commitments and stop payments. There is a panic in the money market and a crash. A bold policy on the part of banks may often save the situation in such a case. If they are able to keep on extending credit, though at a high rate of interest, confidence may soon be restored, and the debtors may have a breathing time during which to reorganise their matters. Thus in the crisis of 1857 and 1866 in England the suspension of the Bank charter act and permission to issue fresh notes allayed the situation.

- One peculiar feature of these crisis is their periodical occurrence. They are found to appear after every seven to ten years with a degree of regularity.
- Periodicity of crisis.
- Several theories have been advanced to explain it. One is the Classical or Psychological theory which states that human nature is subject to alternating periods of confidence and depression. In the former trade and industry flourish and credit expands, and in the latter with the depression there is a crash. But it does not explain the period of 7 to 10 years. Then there is the Climatic or Sunspot theory. It affirms that periodical changes of climate or temperature cause a scarcity of agricultural produce resulting in a famine somewhere of raw materials and food, bringing about a dislocation of the whole economic machinery.
- Psychological theory.
- Climatic or Sunspot theory.
- One variety of this theory asserts that such a climatic change coincides with the appearance of the sun-spots. The Socialists also are ready with a theory—the under-consumption theory. They allege that in the prosperous years the industry earns a great deal, but an unduly large proportion is taken away by the capitalist employers, and the labourers, who form the large mass of consumers, get a small portion and so are unable to purchase much. The result is that while the production is large its consumption is small and there is a crisis. To this it is objected that a crisis is nearly always accompanied by high prices and high wages which does not show that the labourers do not share the increased national income. Even if it were true, it should not make much difference for the labourers purchase mostly necessities of life the demand for which does not vary much,
- Under-consumption theory.

while the employers spend upon luxuries and if they have to spend more they will purchase much more of the goods which would otherwise have remained unsold. A fourth theory is that of the Overcapitalisation or Competition theory which asserts that free

Over-capitali-
sation or
competition
theory.

competition puts no check on the number of producers and prosperous conditions induce many more entrepreneurs to enter the field than are really wanted with the inevitable crash coming at

last. In reality there appears to be some truth in all of these and all combined would probably explain the phenomenon. The last, however, is the theory generally accepted. When once a crisis is caused it tends to spread not only to all branches of economic activities in one country but even to other countries.

Synchronism
of crises.

There is such an economic interdependence that a disturbance anywhere can not fail to have some reaction over the whole economic sphere, and a crisis in one land tends to synchronise with those in other lands.

The effects of an economic crisis are unemployment and general distress as already noticed.

Effects.

What is even more important is that these effects tend to leave a lasting result in a set back to industry and commerce and indeed to the whole progress of the community. There is a general damping of enthusiasm and lack of confidence in others and in the prospects of industry and commerce. This prevents the proper development of the national resources and the national income is decreased, its economic power in the markets of the world is reduced. This decrease of national income and resources is reflected also in the decrease of the individual's income and the intellectual and other progressive activities of society also are hampered.

Thus an economic crisis has a wide influence on the society in which it occurs.

The causes of these economic crises are those which produce the nonadjustment of the production to consumption or of the factors of production. They are liberty of work, the evolution of world markets, the introduction of machine and the phenomenal increase of capital and credit. We have already discussed how the extension of markets has made the calculations of demand and supply uncertain, and how the liberty of profession allowed by the doctrine of *laissez faire* has made overproduction possible. We have also seen the part played by machinery in increasing production with extreme rapidity and increasing chances of overproduction. The huge capital involved in huge machineries makes it likely that the producers will go on producing even when his production is not wanted in the hope of getting at least the interest upon the capital invested. He does so as he cannot easily change the form of this capital, and so the capital employed in production is not adjusted to the needs by being employed only in the production of those things which are required. Moreover the factory system, the machinery, the large-scale production have all increased the national wealth immensely, and naturally the capital or wealth saved also has increased very much. This excessive capital is seeking employment and often dislocates the productive machinery in its anxiety for work.

The theory of one of the checks to this overproduction and economic crisis is advanced by J. B. Say in the "law of markets." We have seen that an economic crisis is a result of some non-adjustment, if this non-adjustment

could be removed the crisis can be averted. The non-adjustment consists in an excess of one thing and a scarcity of another. If either the excess could be reduced or the scarcity be removed the adjustment will become normal again. To reduce an excess is a hardship for it means causing a loss to a part of the community, and this will not save the crisis as the loss will spread to the other parts also. The better way is to remove the scarcity by increasing production in the other branch, and then the balance will be in equilibrium again. Suppose there is an excess of cloth. It is harmful because there is no money to purchase it. There is no money because other people have earned the old amount of income and so they cannot spend more on cloth. If suppose all persons worked harder and increased the production in all their respective branches the proportion would be restored or in other words from their increased earnings they will be able to spend more on cloth and absorb the excess, and the adjustment of production to consumption will remain the same and the crisis will be averted. The law of markets, therefore, is that a commodity will be readily sold if with its increase there is also the increase in the production and number of other commodities. But the trouble is that though this law may be very well in theory yet it is seldom realised in practice for it is practically impossible for all production to increase simultaneously, specially when there is the extensive world market with all its uncertainties of calculation. One practical way of meeting the trouble, which has often proved useful, is a bold credit policy. bold credit policy on the part of banks. If at such a time they also do not become panicky, are sparing in calling in their loans affording their debtors time to tide over the difficulty, and

additional currency is supplied confidence may soon be restored. Take the case of over-production in cloth. The position of the cloth manufacturer becomes difficult because his capital is locked up and he is unable to carry on without disposing off his goods even below cost of production, or his capital may be a borrowed one, and a demand upon him may bring about his failure. But if he can receive credit he may hold on his stock for future and need not stop his work altogether. Even if the trouble is not remedied it will be greatly mitigated and a general crisis may be avoided.

We have noticed that the development of large scale production leads to trusts and combines. In such a case it becomes possible to regulate production. In the guild system the number of producers in any particular line was regulated. In this case also as the whole or a major part of the production of an article is controlled by one authority it becomes possible to regulate that production so as not to disturb the market. Besides trusts there can be other kinds of combinations which can do this work *e. g.* associations of producers can bring about agreements between the members for regulating and restricting production and this is often done now-a-days. There is another kind of combination which is in a way based on the law of markets. It consists in making a combine to purchase the excessive production and holding it for sale in better times, thus saving the producers from loss by creating demand for their goods. Recently it was done in America (U. S. A.) where a corporation was launched to take the excess of cotton from the market.

CHAPTER XII.

LOCALISATION OF INDUSTRY.

By localisation of industry is meant the concentration of a particular branch of production in a particular locality. For example the jute industry is localised in Bengal, the cotton mills are mostly concentrated

in Bombay and Ahmedabad. The Causes.

causes that produce this localisation are various. In old times one of the greatest causes of the growth of cities was the court of the prince, as

Courts.

it attracted artisans and traders to supply the wants of the members of the court. And these artisans also produced high class goods for the court, such goods not being saleable in other places to the same extent their production would naturally tend to concentrate in the capital cities. Another cause of localisation in

Invitation of rulers.

those days was the invitation of a ruler to some artisans from another country and to settle them at a certain place. Such was the case when the Flemish weavers were invited by an English King from Flanders to settle in England. Sometimes certain industries are

Places of Religious pilgrimages.

concentrated in places of religious pilgrimages and health resorts. They relate to the commodities required by the visitors. Thus the making

of brass idols is localised at Benares where numerous pilgrims come. Besides these historical causes there

Position of markets.

are many economic ones, and the most important of these is the position of markets. Where there is a necessity

for a commodity it will be produced there to supply the need. Some of the most difficult work in an industry is the marketing of the produce; if the market is secure the commodity may be safely produced in large quantities, and without a market even a small production may lie on hands. So it is profitable to establish factories near the market for that commodity so that the produce may be easily absorbed. Other factors, however, may tend to localise an industry not near the markets but near

Supply of raw materials. the place where the supply of the raw material used in that industry is plentiful; this will be specially so

when the raw materials are bulky while the finished product is not so, as is in the case of producing oil from seeds or sugar from sugar canes. It all depends whether it will be profitable to bring the raw material to a factory established near a market, or to establish the factory near the supply of raw materials and transport the produce to the market. What will have to be seen is that the produce is placed in the market at as cheap a price as possible, so whichever method decreases the cost of production will tend to be adopted. Similar considerations may tend to localise

Supply of fuel or power. an industry near a place where the supply of fuel is plentiful or near the coal fields; as coal is used in

producing steam. In the future, industries may be established at convenient places near about hydro-electric stations to take advantage of the electric

Climate and soil. power. Climate and soil are potent considerations in localising agricultural

industries. Thus tea is produced on mountain sides and tends to be localised at such places as Dehra Dun, Darjeeling and Assam. Rice requires plentiful water and is usually grown in places

like Bengal, Burma, Dehra Dun. Cotton thrives well in the blacksoil of Central India. Industries connected

Minerals. with minerals tend to be localised near the mines of those minerals with which they are connected. Sometimes geographical facilities also determine localisation, and the industries are established at central places where several lines of communications meet, so that the raw material can be brought and the goods transported to the markets easily. Examples of this are Cawnpore and Delhi.

The advantages of localisation are many. The first is that as the people of that place keep to that production specially, and generation after generation, a kind of hereditary skill is developed and the produce is of a very fine quality. Such was the case with the famous Dacca muslin. Another advantage is that as the industry is mostly concentrated at that place, its resources and strength there are likely to be at their greatest, and highly specialised methods

Specialised machinery. will be adopted: because there will be many producers in the same line, so each will profit by the experience of the others. This fact will also make it easy to make improvements and the adoption of those improvements

Making and adopting of improvements. will be rapid. The experts in that industry are collected there and any new idea will be speedily discussed and adopted. Many persons working at producing improvements will bring about great progress in the methods and machinery employed in the production. Such a place also affords a market for skill in that branch of production. Those who are

Market of skill. skilled in that line will come to the place as they are likely to find employment there where most of the work is done in that industry ; and those who want artisans skilled in that particular line of production will also come there to seek those artisans for these are most likely to be found at that place where that production is concentrated. Then there is the great advantage of subsidiary industries. Subsidiary industries are those

Subsidiary industries.

which help the main industry by performing some preliminary operation or which utilize the waste or bye-products of the main industry localised there. So round this localised industry subsidiary industries are likely to grow up. Near woolen factories a felt-cap factory may be established to utilize the wool waste for making felt. The cost of the produce of these subsidiary industries using the waste or bye-products will be cheap on account of their getting their raw material at a cheap cost and so they will be able to place their products in the market at a

Variety and constancy of employment.

low price. Moreover these subsidiary industries supply a variety of employment to the labourers there, and also ensure a certain constancy of work.

If a labourer is unable to find work in one industry he may be taken in another ; and as the introduction of machinery has made the change easy this variety of work will ensure a certain degree of constancy. If the work in one industry is slack for some reason the work in the others may sustain the labourers, and may enable them to tide over the difficulty. The main industry itself may sometimes carry on a little longer in slack times on account of the revenue which it derives from its waste products. If

there were no subsidiary industries the concentration of only one kind of work in that locality would have been a disadvantage, for then if that industry were to suffer from slack times there would be no other work to do and the labourers would have had to migrate. The labourers being accustomed to only one kind of work would not find it very easy to go elsewhere and adopt a new industry altogether.

The development of communications has got a very great effect on localisation. In Effect of communications. the first place it enables industries to be localised at places distant from different places. the market, because the finished product can be easily transported. For the same reason it may be localised at a distance from the centre of the supply of the raw material and may be established at a centre of communications or any other convenient place easily reached. But at the same time this development has also a decentralizing effect, for now the artisans can easily go to different places and establish the same industry at various centres. For instance now the Benares brass worker may go to the Deccan and establish the same industry there. Ordinarily, however, an industry tends to remain localised at a place even when the original cause of localisation has disappeared. This is called "industrial inertia." It is due to the great difficulty of making a change in the invested capital and the loss, that is likely to arise, of the custom that has become attached to that particular place.

CHAPTER XIII.

COTTAGE INDUSTRY.

The social and the moral evils of the present day industrial production have set people thinking again whether cottage industries could not be revived and so an examination of the subject is not without interest. The characteristic conditions under which cottage industry thrived in old days were the direct touch with the consumer and the absence of the competition of machine made goods. But both of these conditions are changed. Now production is done for distant markets, and the cottage producer cannot with his small resources get proper information as to what is wanted there. This difficulty can, in course of time, be removed by the development of the sources of information like bulletins and reports; and in fact much progress has been effected in this direction but the other great difficulty of competition with machine-made goods remains.

But the advantages are great, and we can appreciate them now as we have seen what the Advantages. disadvantages of the factory system, so far as it affects the life of the labourer, are. The cottage producer leads a healthy moral life in his family. He looks after his dear ones, feels an interest in human things and the zest of life is not clouded by the anxiety and excitement of the factory labourer. He leads a self-respecting and independent life in the country, an open-door health giving life, and at a smaller cost of living than the labourer in

the city. These are great advantages, in fact these are the things which make life worth living, and any economic organisation which does not secure them does not quite conduce to human welfare. It offends the truth that labour produces wealth for the satisfaction of wants and not for the mere increase of wealth, that labour is at once the end and aim as well as the factor of production. To deprive it of the first character cannot lead to good and beneficial results in the long run. So even if these advantages can be secured at the cost of some decrease of wealth they are worth considering.

However, the disadvantages also are too great to permit of a wholesale revival of cottage production in the near future. The cottage producer may produce independently or may produce for an employer. In the former case the chief disadvantages of his position are that he has to compete with machine made goods, and that his resources for marketing his goods are much smaller than those of his big competitor, the factory owner, or large-scale producer. The cost of his goods is higher as the costly specialised machines are not available to him, and so he turns out the same work in much more time and with greater expenditure of labour, the waste of bye-products, of implements and labour are great in his case. And the finish of his goods is not so good as those of the machine made ones. Then he has not got great advertising facilities, his resources are limited, and his market is small. In spite of charging a higher margin of profit per article than the industrialist his gains are small. He could be satisfied with it and lead a simple life, but his position in this competition is not secure and he cannot firmly rely upon the continuity of even these small gains.

If he produces as a wage labourer for an employer but working at home, as in the case of the match industry, then also he suffers under very great disadvantages. Firstly he does not enjoy the protection of factory laws passed for the benefit of factory labourers prescribing conditions and time of work. The employer will exploit his love of home and will take as much work from him as he can with the least possible payment. He will be at the employer's mercy and can get work at home only on the employer's conditions. What is more, even for this work he will not have security which a factory labourer has? In the factory a great deal of capital is invested and so even in slack times the employer will work the factory to some extent at least so as not to lose the interest, and this gives a greater certainty of work to the labourer in the factory than that of the cottage worker, for in the latter's case the employer has not invested anything in costly machines and may stop the work at any time.

Cottage industries may be possible even now as supplementary to agricultural work, as is proposed by the "charkha and khaddar" movement to get cloth woven with handloom by the cultivator in his spare time, for there will not much consideration of the cost of production, and the producer will be satisfied with a small return because his mainstay will be agriculture. Or it may be successful with a system of cooperation, in which many cottage producers may combine and market their produce jointly so as to have greater advertising facilities. They may get money on the credit of all to adopt improved handlooms. Some such weaving societies on the co-operative basis have been founded in

Where personal attention and delicate workmanship are required

India. Another line in which cottage industry even now prospers is of those commodities in producing which personal attention or delicate workmanship is required. Thus wood-carting will probably always retain this character. Such work cannot be performed with the help of mere machines. The jewellers and goldsmiths are other examples.

CHAPTER XIV.

COST OF PRODUCTION.

Now we may discuss the items to be included in the cost of production of an article.

Prime costs. The costs are prime and secondary. Prime costs are those which are incurred specially for that particular commodity or quantity, or number of commodities, which would not have been incurred if that commodity or commodities had not been produced. Thus the cost of raw material used, the cost of labour used in producing those particular commodities and the power, whether of electricity or coal, used in their special production, as also the cost of any special advertisement to sell those commodities only and the charges of transporting them to the market, all these are prime costs. They would not have been incurred if that commodity or commodities were not produced.

Secondary or supplementary costs of a commodity consist of the share of that commodity in the general cost of the business.

Supplementary or secondary costs. Thus a large amount of supervising labour of overseers, clerks, managers is employed to manage the factory, then there is the head manager and the organiser. All these help in the production of a large number of commodities, and their cost should be distributed over all the commodities produced in a given period of time. Similar is the case with the cost of the general advertisement of the business, the interest paid upon the capital invested to the rent of the building, a margin of profit for the entrepreneur, and the depreciation of

machinery ; all these make up the secondary costs.

The share of these costs which is charged to any particular quantity of produce is technically called its "oncost". Prime costs are those which the entrepreneur has to pay from his pocket produce those particular goods, while the secondary costs are not paid specially for those goods. The capitalist, the land-lord, the entrepreneur and the manager may all be one person or they may be different persons altogether. Even in one man they represent several capacities. As a capitalist he is the person who saves wealth for being used as capital, as landlord he is the person who owns land, as a manager he is the person who supplies his specially skilled labour for this purpose, while as the entrepreneur he is the person who undertakes the responsibility and risks of the whole undertaking on his own shoulders. If the four persons are different then the capitalist, the landlord, and the manager are not concerned with the risks of the business, they will take their interest, rent, and salary, irrespective of whether the business is giving profits or is causing loss. If the four functions are performed by the same man a return for all these four should be included as a reward for the four kinds of things that he is doing. The margin of profits is generally calculated from the rate prevailing in the market for that kind of work, just as the drapers in India charge an average rate of at least one anna per rupee.

The importance of the distinction is this, that if an industry is passing through slack times then the entrepreneur cannot turn out all his labourers, clerks, managers, for if he does so he will find it difficult to collect them together at a moment's notice when better times appear, and he might lose

much in the time taken in reorganising the work. He will, therefore, like to keep them on as long as possible. For this purpose he must carry on some production. He will produce some goods

In slack times
prime costs
must be paid.

if they pay him at least their prime costs, though they may not pay their secondary costs. The secondary costs

he will have to pay from his pocket even though he does not produce these goods, for he cannot bring out the capital invested in the machinery, nor he can leave the buildings, or recall the general advertisement. So all these costs he would have had to incur in any case, and the staff, he wants to keep on, would have been paid by him. So these costs he will be prepared to pay even now if by doing this he can keep his workers employed. But he must get the prime costs in any case, for if he does not get them also then he will lose these additional costs as well. In such a case it would be better not to produce at all.

Thus for the short period of the slack time, he would be willing to produce if he gets the prime costs at least, but this he can not do for long periods. He

In short and
long period.

cannot permanently remain satisfied with prime costs and bear the secondary ones himself. In the long period he must get all his costs, prime and secondary, including the margin of profit, otherwise he will give up the production of those commodities. The total cost including the prime and the secondary ones forms the minimum which he must get ordinarily, but in difficult times he will decrease the price to any extent,

Keeping his
market.

but not below the prime costs, so as to keep the control of his market. If he does not do so, then not only will there be a difficulty about keeping his staff, but there will be a chance for some other producer to come

into the field, supply cheap goods and capture his market. Indeed this question of market is even more important than that of keeping the staff, because in commercial transactions it is found that if people become habituated to deal with certain persons, they keep to that habit ; and so it becomes important for him to see that other producers are not able to capture this habit of his customers. Or a large producer may also sell his goods at prime costs in a foreign country on which he dumps his cheap goods, while he realises all the supplementary costs from the produce sold at home. This enables him to reap the advantage of increasing returns by producing large quantities.

It may be noticed that the above remarks apply mostly to manufacturing industries. The case of the agriculturist. In agriculture the secondary costs are not much, as the capital involved in the implements and bullocks in India is not great. If the condition of the market becomes bad after the raising of the crops then the agriculturist should get his prime costs as also the rent he will pay to the landlord and a return for his own labour. If he does not get all these he will sell at a loss, or if he has a reserve from which to pay off the rent he will hold the crop to sell it at a later time ; but what is worthy of notice is that the distinction drawn above is not as important in his case. He would not go on producing if the total costs are not realised. His period of production also is four, six, or twelve months for raising a crop, and so he cannot afford to go on producing at a loss for several seasons. For him the vagaries of the natural elements are sufficient to engage his care, attention and anxiety, and he will not like to engage in another problem. The manufacturer has got no fixed seasons of this

kind and his slack times do not last for a fixed period. At any time the conditions may better and he should be ready for it. Moreover the market of the cultivator is not such as may be captured by a rival permanently for in it there are no fancies and habits. His products are primary necessities of life and will ever be demanded from whomsoever can produce them, but the manufacturer's goods may depend upon designs and habits of use for their popularity.

BOOK III.

CHAPTER XV.

EXCHANGE.

Economics enquires into the economic activities of man in society. In society a man produces with the help of others, and he satisfies his wants not only with his own production but depends to a great extent on other persons. His wants are so many that he can not produce all goods required to satisfy them himself. Consequently he concentrates on the production of some one thing which he can produce best and then exchanges his products with those of his fellow members of the community. This exchange is the second step necessary before the wants of men can be satisfied. The subject of exchange may be studied in three departments, *viz.* its general principles, the forms which the acts of exchange assume and the agency which helps in the successful performance of those acts, or in other words the principles, the forms and the machinery of exchange. In the principles will be studied the theories of value and the equilibrium of demand and supply. Under "forms" will be discussed the principles of barter, money exchange, national exchange and international exchange, and in the machinery we shall study such subjects as the markets and the banks.

VALUE.

The term value is used in two senses, one is subjective and the other is objective. When we estimate the value of an object according to its usefulness to us, the value is subjective and is better

Two senses of
value--utility
and value.

expressed by the term "utility". When by value we mean the power of that object of commanding other objects in exchange it is objective, as the quality is possessed by the object. There may be wide difference between the two. Thus a blanket for a man shivering in cold will have an immense utility, it may save his life some-times, he would be prepared to pay anything for it, but the exchange value of the blanket may be much less than what he might be willing to pay. Spectacles to a shortsighted man have an immense utility but they carry a small exchange value. The value with which we are concerned is the latter, as it is this which will determine what the produce of the activities of a person will bring to him for satisfying his wants : and we have to enquire what are the forces which determine this value-in-exchange of a commodity. The term value is generally used in this sense of exchange value.

There are several theories trying to explain the cause of this value. The first theory is the labour theory which states that the value of a commodity is measured by the quantity of labour used in producing it.

If it be objected that other things besides labour, such as raw materials and instruments are used in the process of production then it has to be remem-

bered that those raw materials and instruments themselves possess labour value. This theory has the further advantage of supplying a measurable quantity, the amount of human labour, as the basis of exchange value. This basis being human labour harmonises with the modern point of view of Economics in emphasising the human side of the science. But this theory is not in conformity with

facts. Firstly labour used in producing an article is already expended and so its value should now be fixed.

Against facts.

It may be said that the labour to be counted is not that used in the original production but the labour which will be required to replace the article now. But even with this change the theory is incorrect; articles in which equal labour was exerted are not of equal value, thus gold and silver may have been extracted with equal amounts of labour but their value will be different; and this happens even where the labour in the two things is of the same kind. If the labour were of two kinds, physical and intellectual, as is the case with a coolie and a writer, the contrast would have been still greater. Indeed there may be value in a commodity even before any labour is applied to it. Thus in the case of a sulphur spring the water may be valuable although no human labour be ever engaged in making that water sulphuric. Similarly in the case of mines labour is exerted in bringing the mineral from below to the top but the mineral itself is not produced with human labour. It is placed there by nature for man's use and enjoyment. Indeed even labour itself has value and if labour is the cause of value in commodities what is the cause of value in labour? Then there may be objects on which much labour has been spent yet they carry no value on account of the labour being misdirected. A house built in a decaying town may have little value although it probably cost as much labour to build it as any other. These questions the labour theory cannot answer. In reality there are other factors also which affect value, and they are the scarcity of the product and its utility to the consumer. These characteristics can give value to

an article although no labour has been used to produce it.

The theory that value is equal to the cost of producing the article is a better theory than the above one. It becomes still better when it is added that by the cost of production is meant the cost of reproduction to replace that article. But this also is open to the objection that there may be many things which have value and which have no cost of production, as they have been found as a gift of nature, they have value still because of their scarcity. It is evident, indeed, that the conditions of the market do sometimes reduce it even below the cost of production. As shown in the case of the labour theory there may be things which may have cost a great deal to produce but which may have little value. It is true that in the long run the value tends to be near the cost of production, or better, the cost of reproduction, but it only tends to be, and there may be forces which prevent it from being so. Therefore no theory of value can be complete without those forces also being studied.

In this connection we should also understand the terms margin of production and the producer's surplus. Any thing is not produced in large quantities all at once, but is naturally produced in instalments, and in producing each instalment the producer will calculate whether it is worth while to produce more. The reason for this is that with every increase in the production the value of that article will go down. In the case of the earlier instalments the value of the article was even more than the cost of production, because the commodity was wanted very much and it was not to be found; but later when a quantity of it is supplied the need becomes less and the value will go.

Margin of
production.

down, and so will be nearer the cost of production. Now the point where the value is just equal to the cost of production is said to be the "margin of production" and the quantity of commodity produced at this point is called the marginal production. The production will not go further than this, because the further fall of value will give less than the cost of production and so will inflict a loss, and nobody will like to go on producing it at a loss. Under special circumstances one may go on producing even though he gets only the prime cost but this will be only for a short time and will not be continued indefinitely.

It is to be noticed that the above description is of a product of a manufacturing industry; in agricultural production also there will be a margin of production, but there the problem will be slightly different. Agriculture follows the law of diminishing returns and so the increasing production will be effected at a greater cost. Consequently the cultivator will produce more only if the demand is so great as to give a value equal to the increased cost of production of the new instalment. So long as the value in the market is greater than the cost of production, owing to a great demand, the production will go on increasing till the cost of production also increases so much that the value and the cost of cultivation, or the production of agricultural crops, become equal. This will be the margin of cultivation, for if the cultivation goes beyond this point the cost of cultivation will increase and there will be a loss at the existing rate of value; so the cultivation will stop there. The point of difference between the margin of production for manu-

factured goods and the margin of cultivation, to be clearly understood, is that the former one is reached by the price becoming smaller : the cost of the earlier instalments in the former case is greater than that of the subsequent ones (because a manufacturing industry follows the law of increasing returns and so with the increase in production it becomes possible to improve the organisation and decrease the cost) : while in the latter case the cost of the earlier amounts of production will be smaller than that of the subsequent ones. A falling off of the demand for a manufactured commodity will decrease its production because the value in the market will go down to a lower point even than the decreased cost of production, while a decrease in the demand for an agricultural produce will decrease the production because the increased cost of the last instalment will not be compensated. The results are the same but follow from a different cause. There is, however, one result which is different. In the case of agricul-

ture the value of the product will be equal to the cost of production of the last instalment, therefore the value of the previous instalments will be greater than their cost, because the value will be the same for all instalments but the costs of the earlier instalments will be smaller than those of the later ones, and so the producer of the earlier instalments will get a surplus over his costs of production. This is called the producer's surplus. There may be a

producer's surplus even in manufacturing industries under certain conditions. Suppose there is a large producer and a small producer. The costs of the former will be smaller than those of the latter,

Producer's
surplus.

When possible
in manufac-
tured goods.

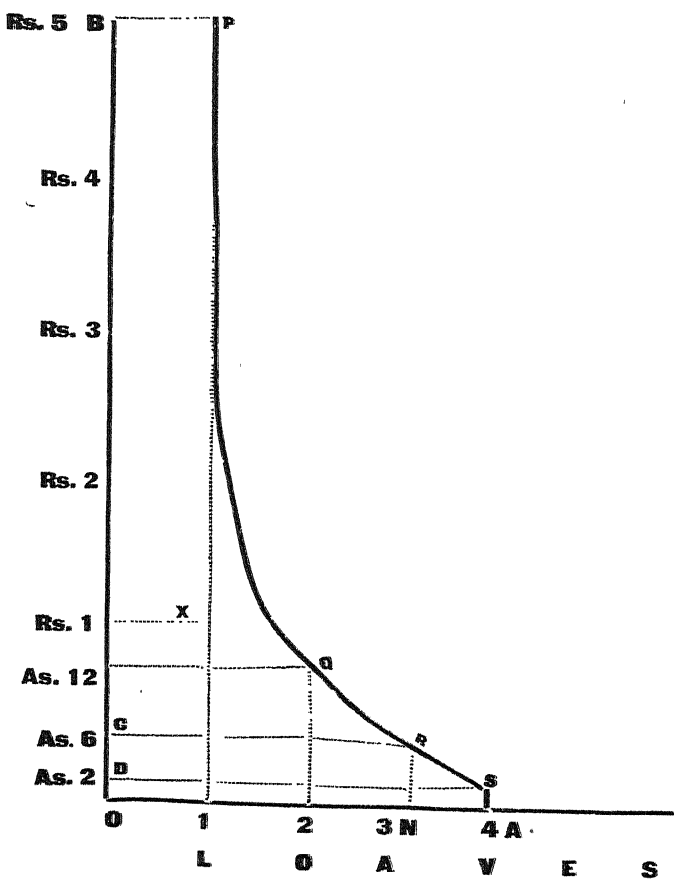
and if the demand for the product is so great that it absorbs the products of both of them, then the value must be sufficiently high to pay for the higher costs of the latter or the small producer. In that case the large producer will be getting a producer's surplus over his costs. But we should note that this producer's surplus in the case of manufactured commodities will tend to be reduced by competition, for the large producer instead of being content with this surplus will rather decrease his price to sell lower than the small producer so as to get the whole market to himself. A producer's surplus will be reaped by a manufacturer when the demand for his commodity is very great and its supply is scarce, so that the purchasers are willing to pay a high price and the producer gets an extra profit. But new producers will enter the field and will, in course of time, tend to bring the value again to the cost of production. In the case of agriculture this will not happen, because if the person who produces the first instalments sells them at a lower price and attracts the demand more to himself he will sell off all his produce certainly, but if he wants to produce further to capture the remaining demand then his costs will increase owing to the law of diminishing returns, and so he will have to raise his price again to the same level as before. This shows that to meet that demand that price will be necessary and a producer's surplus over the earlier instalments will be inevitable. The price of manufactured goods is capable of being lowered because they follow the law of increasing returns. We should now, therefore, enquire into the causes which do not allow value to be equal to the cost of production in all cases.

It is said that the value of a commodity is determined by its utility to the purchaser. But we have

Utility theory. seen that in practice the utility of an article may be much greater than its exchange value. Such is the case in the case of spectacles for a short-sighted person. It is clear that this theory also in this crude form is unsatisfactory, and so is presented in the form of the Marginal utility theory. "marginal utility theory." This theory depends on one fact and that is that human wants are limited in intensity: that is why they can be satisfied. If they had been unlimited in intensity then it would have been impossible to satisfy them at all. If one is hungry and gets a loaf his hunger is reduced and he does not require as many loaves for his satisfaction as he required previously; now he wants one less. If he gets one more his hunger is further reduced: and this goes on progressively till he is quite satisfied and full. If he is asked to take more he will refuse: and if he is forced to take he will fret but may take one more, but if he is obliged to take more still he will feel pain, and it will be physically impossible for him to do so. The loaves had utility for him till he was satisfied, and at that point the utility ceased: beyond that it was changed into discomfort. Before satisfaction the utility of the various loaves of bread was different to him. If a person is very very hungry and he finds that all the shops in the place, in which he happens to be, are closed, then he will be very anxious to get food and will be prepared to pay more than the usual price, because his want is great and the supply is small. If at such a time somebody tells him that he has a loaf but will take Rs 1/- for the loaf, although the usual price of the loaf be only one eighth of a rupee or two annas, he will purchase it. But one loaf does not satisfy him and so he wants another. The seller wants the same one rupee for that

also, but the purchaser, being a little satisfied, will rather move on and take the chance of getting cheaper food at some other place. For the first loaf he would have given even five rupees as he was dying of hunger, but for the next loaf he will not pay more than twelve annas. The seller seeing him move agrees to give one more loaf for 12 annas. The purchaser wants one more loaf but will not pay more than six annas for it. The seller gives the third loaf also. Now the man wants just one more to satisfy him completely, but he is not very hungry and so is not willing to give more than two annas, and he gets the fourth loaf as well. A fifth loaf he will not take even though it be of a smaller price, except that he might purchase one or two as a reserve against such an emergency in the future. But otherwise in the present he is satisfied. Now the utility of the last instalment which he is just willing to take is called the *marginal utility*. Beyond this the commodity begins to have a disutility for him. Suppose if all the four loaves were offered for sale to him at the very first instead of being brought out one by one temptingly before him, then he would have offered the same price for all, or annas two per loaf, or annas eight for the four. Although the utility of the first second and third was greater than that of the last or the fourth, but the price will be determined by the utility of the last or the marginal loaf, as in these four loaves, there is no difference between the first, second, third and fourth. They are interchangeable. For one he pays a price equal to his utility, on the other loaves he gets a surplus of utility. For the first loaf he would have given anything even to five rupees and so its utility was equal to the utility of five rupees to him. That of the second was equal to twelve annas, that

Total utility
and consumer's
surplus.



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of the third six annas and of the fourth two annas. So the total utility of all the four loaves was equal to Rs. 5 + annas 12 + 6 annas + 2 annas = Rs 6 annas 4, but he gets all the four loaves for eight annas only and so enjoys a surplus of five rupees twelve annas. This is called the consumer's surplus or the surplus of utilities which a consumer of certain commodities enjoys above the price paid by him for those commodities. Sometimes it may happen that the second object may have a greater utility than the first, as when the owner of a horse desires another similar one to make a pair, and he will be prepared to pay for the second even more than he paid for the first; a stamp collector may pay for a hundredth stamp required to complete his collection a very high price. Another thing to remember is that the instalments have to be proper ones to make the decrease of utility perceptible. But in general for all practical purposes the law of marginal utility holds good.

Such points become quite clear by the use of Utility curves. graphs and drawing curves. Such curves enable the whole thing to be understood at a glance, and are very helpful in finding out price levels. Therefore we will illustrate the above with a curve here. Draw two lines and OB and OA at right angles or perpendicular to each other. Mark along one line the instalments of loaves as shown on OA. Along the other line mark the utility as on OB. Now the utility of the first loaf is Rs. 5/- so draw a line from the mark Rs. 5/- parallel to OA and another from the mark of the 1st. loaf parallel to OB. These two lines cut at the point P. Similarly make the points Q. R. S. to represent the utilities of the 2nd, 3rd, and 4th loaves. Then join these points P. Q. R. S, and the curve PQRS will be the required utility curve. It shows how great the utility

of the first loaf is when a person is very very hungry. and it also shows how rapidly the utility decreases when the first loaf is obtained, for the descent of PQ is very steep, and thereafter the decrease in utility is not so rapid and the descent of QR and RS is less rapid than that of PQ. Further the rectangle ODSA represents the price of eight annas paid for all the four loaves at the rate of two annas each, and the figure DBPS represents the consumer's surplus over the price paid. Such a figure brings out all these points quite graphically and makes a clear impression on the mind. It is very easy to construct and very helpful to understanding. We shall see in the chapter on demand and supply that the equilibrium of demand and supply determining the price of a commodity is easily and accurately obtained by this interesting method.

From the above it will be clear that the marginal utility S determines the price of the loaves, but this is on the condition that the supply of four loaves is forthcoming. If four loaves are not available at all, if only three can be got then the utility of the last or the third loaf will determine the price of all the three and the rectangle OCRN will represent the price paid and the figure CBPR the consumer's surplus. If only two loaves are available then the point Q will determine the price of the two, and if only one loaf then its price one rupee will be represented by the point X. This point is not on our utility curve because the utility of this instalment was much greater and is represented by the point P: it was by accident that the loaf was being got at Rs. 1 giving a surplus of four rupees worth of utility to the consumer. This indicates that the value of a commodity is not deter-

mined by the utility of the last useful instalment, but by the utility of the last purchased instalment. This latter also is called marginal utility, as it is the utility of the instalment which is at the margin in the sense that beyond it the price to be paid is more than the utility derived from the next instalment of the commodity. Above it the price paid is less than the utility derived, and a consumer's surplus is reaped. This point of marginal utility is moving, and moves up and down with the increase and decrease of the price. When the supply increases the utility of the last available additional instalment decreases and so does the price. If the supply decreases the lower instalments are not available, and the utility of the last available instalment is higher, and so the price is higher. An advantage in this conception is that it takes account of the supply side also. If the cost of production of the commodity is higher than the utility of the lower instalments, the lower instalments will not be supplied by the sellers, for by doing so they will suffer a loss. Value will be determined at the point where the utility to the purchaser is so great as to enable him to pay at least the cost price of the commodity and where the utility is just equal to the price paid that will be the point of marginal utility. This conception of margin, as the point where the cost and gain are just equal, runs throughout the science. In the case of utility the term marginal utility, therefore, is ambiguous. From the pure subjective point of view it refers to the utility of the last useful instalment, beyond which the commodity is useless or may even have disutility. On the other hand in exchange it is the utility of the instalment of which the price is just equal to the utility derived. Another term, which is used, is final utility. The two

terms are used as convertible and the theory may as well be called the final utility theory, but marginal utility is now more generally used.

It is suggested that to remove the ambiguity one of the terms may be reserved for one of the concepts. Thus as "marginal" is used for a similar idea in other connections also marginal utility may be used only in relation to exchange, while "final utility" may be reserved for the subjective idea. Total utility and marginal utility vary inversely. If the marginal utility rises then the total utility decreases as now fewer instalments enter into the total. If the margin goes down the total utility increases, and it is greatest when the marginal utility is at zero. Thus it is a paradox that a commodity is most useful when it is valueless, on account of abundance.

We have used two terms, value and price, for the same idea, but now we should understand the difference. Value is the power which a commodity possesses of commanding other commodities in exchange. This value when expressed in terms of money is price. Both are exchange relations. Value only denotes this relation while price expresses it in the form of a general measure, money.

CHAPTER XVI.

DEMAND AND SUPPLY.

We have seen the forces that affect and determine value or price and now let us enquire how this value or price is actually determined in the market where there are many sellers and many purchasers of the same kind of goods. It is a very interesting subject.

So far we have considered the individual seller and the individual purchaser, but in the market there are many of each class. Each one will be actuated by similar motives peculiar to his class.

Thus the buyers will estimate the value according to the utility of the goods to them compared with the prices demanded by the dealers and then striking a final utility or the utility of the commodity checked by its supply. On the other side the dealers will look at the persons roaming in the market or the number they expect to be out-searching for a particular commodity, the price they appear to be willing to pay and the cost of the article they have to sell. They will sell if the price is near the cost. If they find the purchasers many they will demand a high price, if the purchasers are not many they will take a lower price. Supposing there are ten cloth dealers in the market of a town A. They hear one day that an order has been passed in the local school prescribing a school uniform. The cloth dealers expect a great demand for that kind of cloth. Now we should remember that it is likely that some of the dealers might have purchased the stock a long time back, some might have just

received a fresh stock, different dealers might have taken from different producers, there might be even a slight difference in texture but not a very appreciable one. So the costs of the different dealers would be different. On the other hand some of the students may already have old uniforms, but as they are old they might be willing to take cloth for making new ones. Other students not being very rich would be willing to take good cloth of that kind only if the price is cheap, if it is not, they will rather take some other cheaper cloth of a similar colour, or in other words the utilities of the students are different. Let us make a table. Suppose the students are one hundred in number each wanting 6 yards. Of these sixty will take the cloth at a price of about 7 annas per yard, say fifteen are willing to take it even at ten annas a yard, while say fifteen have old uniforms and will take only at 5 annas per yard, while ten will take only if it is four annas per yard otherwise they will take some cheap cloth or if no substitute is available they will rather bear punishment or leave the school. being too poor to pay more. Then the total demand at each price will be :—

At annas 10 per yard	15 students	willing to take	90 yards
" 7	" 75	" "	450 "
" 5	" 90	" "	540 "
" 4	" 100	" "	600 "

Such a table showing the demand for a commodity at various prices is called the Demand Schedule. By

Demand defined. demand is not meant the mere wish to purchase, but when that wish is backed by a willingness to pay the price it becomes a demand at that price. Similarly a table showing the supply available at various prices is called a Supply Schedule. As in the case of demand we should

differentiate between stock and supply. Stock, supply, and supply-schedule. The stock consists of the available quantity of a commodity, while supply is the quantity which is offered for sale at a particular price. Let us construct a supply schedule. The dealers already know that there is likely to be a great demand for that particular kind of cloth so they will try to realise a high price. Supposing a party of students comes to a dealer but does not offer a sufficiently high price, then the dealer will not sell, he will rather wait, because he knows that there will be other students coming. And as every dealer knows this, he will be a little stiff. If the demand had not been great then the dealers instead of being stiff would have invited the prospective purchasers to look into their shop, each would have tried to catch the purchasers before another rival should have the occasion to speak to him. He would show the purchaser good cloth at a cheap price so that the purchaser may not go empty handed and be caught by another dealer. They would decrease the price as much as they can. Anyway in the present case the demand is great so the dealers will be hard in their prices. But they will not be too stiff, because if they demand an exorbitant price the rule of the uniform may be changed on the representation of the students, or, what is more probable, the students may collectively order the cloth from some producer in another town. Besides, some of the dealers have old stock and may be willing to take a little less than the others, or those whose supply is slightly inferior will want a lower price while those whose cost is high will require a high price to be paid. Supposing of the ten dealers six are willing to sell at 9 annas per yard and can supply 400 yards. Two are willing.

to sell at 7 annas per yard but have got only 100 yards to sell. One will sell only at 10 annas per yard and has got another 100 yards and the tenth has got 200 yards and is willing to take 6 annas per yard. The supply schedule will be:—

At	6 annas per yard cloth offered	200 yards.
"	7 "	300 "
"	9 "	700 "
"	10 "	800 "

These schedules, however, represent only the prices at which the purchasers and the sellers are prepared to sell or purchase. The transactions will not be made at different rates. If a dealer who is willing to sell at a cheaper rate also sees that the students are purchasing elsewhere at a higher rate and he also sees that the demand is great then he will also stick to the same price, and as the students have paid that price elsewhere they will be willing to pay him also. If on the other hand the demand were small then the cheap seller would have lowered the price: some of the students would have purchased from him, and others would have gone to the dear seller and would have taxed him with dear selling and would have insisted on paying the same low price as was being paid at the other shop, and the dealer seeing that the demand was not great would have lowered the price. Thus the same price would rule for all transactions. The dealers as well as the purchasers would always try to keep themselves informed as to what was being generally demanded by other dealers and what was being paid by the purchasers easily.

The law of "Indifference" This tendency of one price to rule for the same commodity in a market at a particular time is called the law

of indifference. The difference of purchasers or sellers or of the quantity of the commodity does not matter. But the commodity should be of the same quality. For different qualities the prices will naturally be different. It is true that sometimes

Sometimes there is a slight difference in the price
prices may when there is a competition between
be different. different dealers, but ultimately it

also tends to one price for the other dealers also will reduce if one reduces till the limit of reduction is reached. This limit is the cost which they have invested in the goods. Similarly if some purchasers pay highly, others also, who require the commodity very much, will be willing to pay high prices, while others who are not willing to pay so high will keep out. The limit to this high payment will be the utility of the goods to the purchasers.

But very high and very low prices cannot remain for a long time. Supposing that some

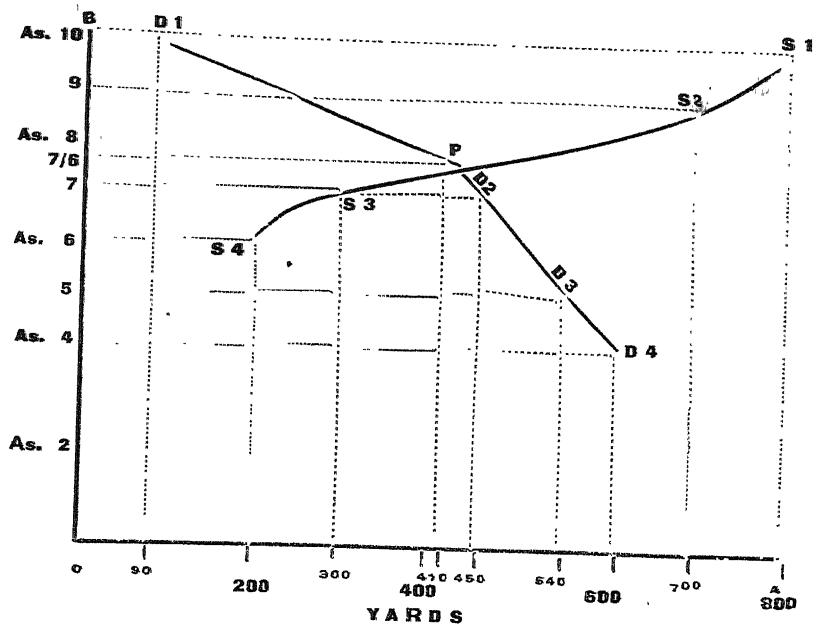
But they tend for a long time. Supposing that some
to come to needy purchasers do pay a high price,
one level. they will not be able to take up the
whole supply of the market, and so

the remaining dealers will sell at a lower rate to the large body of purchasers who had kept out at the higher price. The possibility of this will make the needy purchasers also hesitate before paying a high price, because they will understand that sooner or later the general body of the sellers will sell at a lower price so as to sell their stock, and so they will wait. Similarly on the other side even if a few sellers sell cheap, it will not satisfy the whole demand, and the purchasers must pay a higher rate to the general body of the sellers so that the whole demand may be satisfied. The cheap sellers also will understand this and will wait for that opportunity

to sell better. Thus one price will tend to be established and the price will be that at which the largest body of sellers and purchasers can agree together or the largest number of transactions can be effected or in other words at which the largest amount of the commodity can be sold. This will be quite clear if we make curves from these schedules. The two above schedules combined in one are :—

Demand schedule	At price in annas	Supply schedule.
90 yards	10	800 yds.
Do	9	700 do
450 do	7	300 do
Do	6	200 do
540 do	5	
600 do	4	

At 4 and 5 annas there is a large number of buyers but no sellers. At 10, annas there is a large number of sellers but few buyers. At 9 annas sellers are many but purchasers are few still. At 7 and 6 annas the whole demand cannot be satisfied. The price will be somewhere between 7 and 9 annas because at 7 annas 300 yards are already available and for taking 150 more the purchasers must raise the price a little more so that more sellers may sell. The price cannot be between 7 and 6 because then the sellers will decrease further and the demand will be still less satisfied. So it will be somewhere between 7 and 9 annas that the largest numbers of buyers and sellers will come together and that point will fix the prices for the others also. This price we shall know exactly by drawing supply and demand curves



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and the point where they will cross will indicate the price that will rule.

Draw the abscissa and the ordinate and mark off prices along one and the number of yards along the other. First draw the demand curve $D_1 D_2 D_3 D_4$ by marking these points at the crossings of straight lines drawn from 90, 450, 540, 600 yards and those drawn at right angles to these from 10 annas, 7 annas, 5 annas and 4 annas. Join these points and the demand curve is formed. Similarly draw the supply curve $S_1 S_2 S_3 S_4$ by drawing lines from the respective yards and prices. Both these curves cross each other at the point P and this point represents the price at which the largest quantity of cloth will be sold. Draw a line from P perpendicular to OB meeting it at K. K will be the price. Then draw a line from P perpendicular to OA meeting OA at L. L will be the number of yards sold at this rate. That is the price will be 7 annas and 6 pies and at the price 410 yards will be sold. Moreover the shape of the curves shows the tendencies of the demand and supply and give an idea of the stiffness of the demand and supply by the direction and degree of the slope of the curves. This is, then, the way in which the price is actually determined in the market. In the case of world markets the whole sale prices are published in bulletins and reports and the dealers keep themselves well informed of the prospective supplies and demand from trade reports; so even though there is no particular market place for the whole world the price of commodities with a world market rules at nearly the same figure because of these reports and informations. Goods move from a cheaper to a dearer market place bring-

ing the value at the two places again to the same level except for the cost of transit etc.

From the above it will be clear that with the increase in the demand for a commodity its price tends to increase, the sellers become more stiff and insist on a higher price than they would otherwise have done, and the intensity of the demand forces the purchasers to agree to the higher rate. If some purchasers do not, others will, and so all will agree. On the other hand if the demand is small the sellers will be anxious to sell off their goods to the first buyer they can catch lest by delay they lose the buyers altogether. On the other hand the buyers will feel more secure of getting the commodity and will offer less than they would otherwise have done and so the decrease in demand will lower the price. The opposite effects will follow an increase or decrease in supply. In the former case the price will decrease, and in the latter case the price will increase. An increase in the supply will have the same effect as a decrease of demand, in both cases the comparative relation between the supply and the demand will be of a supply greater than the demand. In both cases the dealers will be anxious to sell their stock and so will be prepared to take as low a price as possible. Similarly the comparative relation is the same when the demand increases or the supply decreases and in both cases a high price will rule. When the price is falling, due to any of these reasons, it may fall even to prime costs so that the dealer may not lose his customers, and as the time is only a short period he may be willing even to bear a little loss for the sake of his market. In his case the prime costs will consist of the actual price or the cost of the co-

commodity he paid to the producer, the cost of freight and any taxes, like octroi, paid by him. He will not charge for his labour, for the capital invested, and for the rent of the shop, all of which will be the secondary costs as shown already. It may sometimes even go lower when the market is very bad with no prospects of bettering in the near future, for then he may desire to disengage his capital to employ it in more profitable work, and may, for this purpose, even suffer some loss. On the other hand when the price is rising it can rise up to the final utility of the buyers. This final utility will be higher with a decreased supply or an increased demand. In short periods this increase or decrease in demand or supply is due to some accidental reasons and so the price may be higher than the cost of production and the

producers may reap a producer's surplus both in manufacturing and agricultural industries.

The effect in a short period of an increase in demand will be to increase the price. On supply and demand. This increase in price will tend to increase the supply. As larger profits are to be realised the supply of that commodity will be sought out and placed upon the market. But this new supply will come only from the increased working of the existing sources of supply, or the existing plant and machinery, for there is not sufficient time for increasing the amount of plant and machinery itself. If on the other hand the price rises on account of a decrease in supply some of the demand will fall off because of this increase; and this increase in price will tend to increase the supply as well bringing about an adjustment. In all cases the short period increase of supply will be

limited by the existing means of production. and in the case of the agricultural produce by the existing amount of the particular produce, because in agriculture a commodity can be produced only in accordance with seasons and in a comparatively long time, and so the supply will remain the same. In both cases the short period supply price will increase. In the other case of a short period falling of demand, prices will be lower and the existing means of production will not be fully worked, but there will not be sufficient time to change the capital invested to other work; the producers will go on producing but to a smaller extent and may accept a price near the prime costs, unless there be a danger of his spoiling the market for future by accepting too low a price; in that case he will rather stop the production, or it may result in a general agreement of producers to curtail production so as to decrease the supply sufficiently to bring the relation of the demand and supply again to the same point. In the case of agricultural production, as the produce is already there and no decrease or increase in any particular production can be effected before the next season, the supply will be reduced only by being held over. If it is not held over and there is an increase in the supply then the price will go down, This fall will, in its turn, make the cultivator turn some of the land, which previously grew the particular crop, to some other use in the next season but in the existing period the supply will be determined by the quantity of produced already grown. In all cases in short periods the limiting condition of the existing means of supply will remain. One point remains to be noticed in this connection. When the price falls the producers will be willing to take up to the prime costs. But it is only theoretic-

cally that only the prime costs enter into a short period supply price : actually the price will be higher than the prime costs, specially in cases where a great deal of capital is invested and so the proportion of the secondary costs is great. In such a case a part of the secondary costs also will have to be realised. As the supply from the existing sources is necessarily limited, therefore in a short period the intensity of the demand will be the predominant factor in determining price.

In the long period the means of production have time to be adjusted to the requirements of the market. If the price remains increased for a long time the increased profits will induce new capitalists to join that line of production, and the old producers will increase their plants and improve their organisation. The result will be the same whether the price is increased on account of the demand increasing or the supply decreasing. In both cases the old relation will tend to be established, and the price will tend to reach its normal equilibrium. On the other hand if the price remains low for a long time, the producers in that branch will change the direction of their work and will take to some other production, and thus the supply will tend to become permanently decreased, and the equilibrium of demand and supply will be again established. The effect will be the same whether the fall is due to a lasting decrease of the demand or to an increase of the supply. Long period is not any fixed period of time. It will vary for different industries. It depends on the time taken by new entrepreneurs coming into the field and setting up new organizations. In modern conditions it often takes years to set up a new factory and bring it into working order.

Long period—
on supply and
demand.

When new sources of supply have come into play they will tend to decrease the price by their competition till the price is equal to the cost of reproduction. Therefore in the long period the cost of reproducing the marginal supply will be the predominant factor in determining price.

But this normal equilibrium does not mean exactly the same price but a condition of stable equilibrium. In the short period the adjustment of production to the needs is not complete, hence the equilibrium of the existing demand and supply is unstable *i. e.* is likely to be changed in course of time very soon. In the long period production has had time to be completely adjusted to the needs and so the equilibrium will be as stable as it was before the disturbance. But the price may be different in spite of this equilibrium, or in other words the equilibrium may be effected at a different price. Thus supposing that a permanent increase of the demand causes an increase in the means of production and an improved organisation of the productive system. In manufacturing industries where the law of increasing returns acts, this increase of demand and supply will lower cost of production and the price permanently, and the new equilibrium price will be different from the previous one. If the industry follows the law of diminishing returns then there will be an increase in the cost of production and the new stable equilibrium will be established at a higher price. In the converse case if the supply decreases then the long term equilibrium price will be higher in the case of manufactures and lower in the case of the agricultural industries. Apart from this, while an underlying stable equilibrium rules the actual price may vary from day to day within certain limits on account of the temporary variations in the conditions of demand and supply.

We saw that in the short period an increase in price may give a producer's surplus to both manufacturers and agriculturists. but in the long period the surplus will still be gained by the agriculturist, for he produces his crops some at a higher and others at a lower cost, and the cost of the last instalments, or the higher cost, will determine the price. Therefore, he will get a surplus over the previous instalments. In the case of the manufacturer if there is a surplus other competitors will try to cut it down by selling at a lower price and he will be forced to sell at a rate equal to his total cost of production unless he has a monopoly of the production.

The term normal does not mean any specific point which may be said to be permanent for all time. It means only a condition of stable equilibrium, and there also the stability is not guaranteed for ever. All that it means is that the supply has adjusted itself properly and enduringly to the present conditions of the demand, but there may be a new disturbance to the supply or the demand, and the equilibrium may be disturbed, but it will tend to establish itself again in course of time. In practice while this underlying tendency to a lasting equilibrium is always working, temporary and accidental causes are ever varying the price even from day to day. Under these variations will be observed a certain price which forms the basis of these variations. That underlying price is called the normal price and the short period variations the subnormal prices.

Just as the increase or decrease of demand for, or supply of a commodity affects its price, similarly a rise or fall of its price will affect its demand and supply.

ply. According to the law of demand an increase in price decreases the demand and a decrease in the price increases the demand. The law of supply states that an increase in price increases the supply and a decrease decreases it. How this happens has already been seen. Where the effect on the demand or sup-

Rigid supply of a rise or fall in price is not great demand and the demand or supply is said to be supply. rigid or inelastic. Take the case of food grains. If their prices rise people will not give up eating. It is no doubt possible that very poor people may find it difficult to make the two ends meet, but generally there will be little difference. Consumers will spend less in other things and will spend more in food grains but the quantity of food demanded will remain very nearly the same. Nor will increased price lead to a great increase in the supply. All the available land is likely to have been taken up already, and further intensifying the cultivation will mean increasing the cost. Cost will be increased till it is equal to the increased price, provided that the increase in demand indicated by the higher price is permanent. But this will not put very large new supplies of agricultural produce on the market, because a permanent increase in the demand is not likely to be great in proportion to the old demand, for population, or other consumption of agricultural produce, does not vary so suddenly or so much : the increase in price will neither decrease the demand very much nor will it increase the supply to any great extent. Similarly a fall in price will not increase the demand much, because a lower price cannot make persons eat more than is necessary to satisfy their hunger. The fall in price may, however, decrease the supply by throwing the marginal cultivators out of the production,

but this decrease will tend to be readjusted by the continuing demand: so although the fall in price may for sometime result in food grains being sold cheap or being held over till better times, still there will be little change in the normal yearly supply. So food grains are said to have a rigid demand and supply. This is true of food grains generally taken together, but particular food grains may have a more flexible

Flexible or
elastic.

or elastic supply and demand on account of the principle of substitution, or the fact that where the value of a commodity is more than an individual can afford he will substitute it with something cheaper and nearly as useful, though slightly inferior, in his consumption. Thus if the value of wheat increases very much many people will give it up and will begin to use Jwar and Bajra, the millets, instead. Similarly if the price falls very low many people may give up Jwar and Bajra and may begin to take wheat. On the other hand if wheat be very cheap some cultivators will give up wheat growing and will grow some more valuable crop, and if it becomes very dear they may give up growing other crops and may take to wheat. But even such flexibility is not so great in the case of food grains as it is in the case of articles of luxury. If watches become cheap their sales are likely to increase very much and if they become dear their sales will fall off. An increase in their price will increase the supply and a decrease in price will decrease it. Similar would be the case with the higher qualities of cloth. Flexibility or elasticity means the liability of being increased or decreased appreciably by a slight increase or decrease of price. The greater the response to the price the greater is the flexibility. Rigidity and flexibility are relative terms and are different in the case of

different commodities. Those commodities which have many uses, the consumption of which can be postponed, or substitutes for which are easily found have an elastic demand, for these characteristics make some reduction in consumption always possible. When

prices are very high only those for whom price does not matter will purchase. If the price is very low then all

those who desire to purchase are likely to have taken the goods already. At such points the elasticity is small. Again things having several sources of supply, or the supply of which can be quickly increased have an elastic supply. At very high prices the supply is not likely to be very elastic, because the margin of profit is likely to be so great as to have already induced all those producers, who can produce that article, to put their supply on the market. Necessaries of life and those commodities which depend more on natural elements than on human ingenuity for their production are likely to be inelastic in their supply and demand. This distinction is very important for the purpose of taxation, because if a government wants to derive a revenue by taxing a commodity, then if its demand and supply are rigid the tax will yield a great revenue, for the increase in the price caused by the tax will not decrease the demand. It will be sold as much as before and large proceeds from the tax will be collected by the government. If the demand or supply were flexible the revenue would not have been very great. It also helps us in finding whether a product can bear a monopoly price, because if its demand is rigid then the increase of price will not affect the sales very much, and the monopolist will reap the advantage.

Normal demand and supply do not mean any fixed demand and supply, nor do they mean average

Normal demand and supply. demand and supply over a number of years. Normal demand and supply mean the usual demand and supply which under the given conditions is expected to be present. Special, accidental or passing circumstances will make them different. Apart from such special conditions, the demand or supply which would remain will be the normal one. Its rough idea may be given by the average, but the average is not really the normal, for in calculating the average various special factors also have been included. The normal demand or supply may never be realised accurately in practice, for at all times some special factor or other might be working, but it will form the broad base in which the special variations will occur. The normal itself may become different if some special factors become permanent features, and increase or decrease the normal demand or supply of a commodity permanently. For example an increase in population will increase the normal demand for food grains: a change in the standard of living of a society will change demand. On the other hand a general change in the method of production of a commodity will vary its normal supply. The introduction of the steam engine was such a change.

A demand for things which directly satisfy our wants is said to be direct demand, while the demand for things required to be used to produce such a directly satisfying commodity is called an indirect or derived demand. Thus the demand for caps is a direct demand, but a demand for felt to make caps is a derived demand. The derived demand would not exist if there be no direct demand. A commodity directly satisfying

wants may require several things to produce it. In the case of the cap we require felt, ribbon, cloth and cardboard. All these are said to have a joint demand. They will all be required in a certain proportion. If the supply of felt becomes less then the use of the others also will be decreased. The result will be that the increase in the price of the scarce article, felt, will decrease the prices of the other articles forming the joint demand. As the demand for caps is not rigid, and the substitution of one kind of caps with another is easy, the producer will not like to increase the price of the caps much, and the increase in the price of felt will be borne partly by himself by being content with smaller profits, and partly by the other factors used in producing caps. If the demand for caps were inelastic or rigid then this increase would have been thrown mostly upon the consumers by increasing the price of the caps. The variation in the price of felt will disturb the conditions of demand and supply of the other factors of the joint demand, unless a cheaper substitute for felt itself be found and used.

Where one commodity is used for various purposes then all the uses form a composite demand. Composite demand. paper may be required for books, newspapers, stationery, and packing. The demand for all these uses will make up the total demand for paper. These demands will compete with one another to get hold of the supply. In relation to the supply these various demands are said to be competitive. Competitive demands. An increase in any one of them will affect the others. It will increase the price of the whole commodity and will limit its supply for other uses. Then the in-

crease of price due to the limitation of the supply for those uses will tend to be distributed on other factors of the joint demands of those uses. So the disturbance in one place will spread over a large area. This gives us an idea of the complicated economic relations which obtain in practice, and also shows us how wide must be the vision in discussing any particular economic problem.

Like demand, the supply also may be direct and derived. Where a thing is produced for its own sake its supply is said to be direct. The wheat crops are grown for the purpose of getting wheat. But with it straw is produced at the same time. It has a derived supply.

Where several things are produced at the same time from the same source they are said to have a joint supply. Coke and gas are derived from coal and form a joint supply. In producing cotton, seed also is produced. In these cases the total cost of producing the whole joint supply must be realised from the sale of all the supplies. If one product is more in demand than the other, then the price of the former will be high and of the latter will be low. And it should be sufficiently high to compensate for the smallness of the other. India exports wheat, the joint product straw of the exported wheat remains in the country. As there are not many uses for straw in India, its price cannot be very high, for its supply is great, and so the cost of producing both the straw and the wheat must be met in a large part from the sale of wheat. If new uses for straw can be found the value of wheat can become lower because a part of the costs will be thrown over the straw. England imports wheat and so does not

get straw with it. Consequently the price of straw there will be high ; and a wheat producer in England can get a good part of his cost from the straw and can lower the price of wheat to be able to sell in competition with imported wheat. The waste and by-products in an industry form a joint supply and have a similar influence. The production of the by-product is always limited by the production of the main product. An increased demand for the by-product will increase its supply only if its price rises sufficiently to absorb the loss that may be caused by lowering the price of the main product, as the supply of that also will be increased at the same time.

Where several commodities compete for satisfying the same want they are said to constitute a composite supply. It is this possibility which makes the application of the principle of substitution possible. With respect to the want, the supply of each of the commodities is said to be competitive. When several commodities can be used in producing a commodity, or in satisfying a want, an increase in the price of one of them is likely to cause an increase in the price of the others as well, because on account of its increase in price its demand will fall and that for its other rivals will increase, increasing their prices also. Similarly a decrease in its price or an increase in its supply will cause a fall in the prices of the others, as it will now be used more than before, and so will decrease the demand for the competing supplies. Then this effect on each of those commodities will spread to their companions in the joint supply, and joint and composite demand. It shows numerous cross connections and forces which ultimately determine the actual value of a commodity.

CHAPTER XVII.

FORMS OF EXCHANGE—BARTER.

Having discussed the principles of the determination of value in exchange we have now to examine the forms which an act of exchange may take. These forms may be classed from the point of view of the kind or the extent of the operation. In the former will be treated barter and money exchange and under the latter will be discussed the national and the international exchange.

Barter is an exchange of a commodity for a commodity. This form brings out the principle and purpose of exchange very clearly. Exchange is meant to enable a man to satisfy those wants of his for which he does not produce the necessary goods, by getting those goods from others. Man lives in society and has many wants. He cannot produce all the goods he needs himself and so depends on other members of the society. It is this mutual dependence and cooperation which builds up a corporate life. But if a person expects to take goods from others he must himself give to others something in exchange. Indeed when a person produces only one thing continuously, he is likely to produce it more than is necessary for the satisfaction of his own wants. Therefore he will have spare goods which he would, with advantage, exchange with others for the things which he wants. This will enable him to get rid of superfluous objects and at the same

time procure commodities which he requires. Without such an exchange of goods it would become impossible for a person to satisfy his numerous wants. The form of barter, in which a commodity is exchanged for a commodity, brings out the fact that the purpose of exchange is to obtain a commodity to satisfy our wants.

The great advantage of this act of exchange is that each party give a product which he does not need so much and gets something which he requires more. The utility of the thing obtained in exchange is greater than the utility of the thing given in exchange to each of the persons engaged in the act. If this were not so, no exchange would have been made. Suppose A has got a cap and B has a book and both agree to exchange the two, then the book must have a greater utility for A than the cap. If the cap and the book had been of equal utility to A he would not have taken the trouble of the exchange. A will compare the value of the cap and the book on the basis of labour that he spent in making the cap and the labour he would have had to spend in making the book. If the latter is not less than the former he will not be a loser. If it is less than he will never exchange ; he will not make extra caps, but will make a book also. He makes that which he can make easily, and takes that which he cannot so easily make himself. But as he wants the book, its utility is naturally greater than that of his own spare production. The same would be the case with B. Therefore by the act of exchange both A and B will be adding to the utilities which they possess. The exchange will leave them in a better position than they were before, and so there will be an increase in the total utility of the two parties. The

act will be advantageous to both.

But the form of barter has got many serious

defects which has led to its rejection
 Its dis- and substitution by money exchange.
 advantages.

In the first place for barter it is necessary that there should be personal contact of the two parties so that each may see fully well whether the other's product is such as is likely to satisfy his wants. Before the exchange takes place several conditions must be satisfied. When the two parties meet they must both possess the article wanted by the other and which they themselves are willing to part with. One must find a person who has what one wants and at the same time who wants what one

has. It is technically termed a double
 Double coinci- coincidence. If any of these charac-
 dence necessary. teristics is absent the exchange will

not be made. Even if both of these conditions are satisfied there should be a third condition that the value of the products of both must be nearly the same. If to each of them the value of the other's article is a little more than that of his own the exchange will be made, otherwise not. If A considers B's book only half as valuable as his cap there will be no exchange for the cap cannot be divided into two ; by doing so its utility would be destroyed. Where things are exchanged with money, goods of any value may be exchanged because money can be divided into any number of parts. A fourth difficulty is that whatever is got in exchange can satisfy only that particular want which it is designed to satisfy, and if by chance the necessity of such satisfaction is gone the article would remain useless. Thus the book got in exchange for the cap may cease to be useful to A after a short time; then A must go through another operation of barter so as to exchange the

book for something more useful. In case of money exchange the money obtained in exchange for one's commodity may be used for any purpose whatever. All these difficulties limit the transactions by barter very much. The transactions which are limited in number and size, of time can be only a small number, for each transaction will take a certain

time in the two parties with the exact things necessary for the exchange being found, and then the size of the transaction should be small for huge transactions would be difficult to negotiate and work on the barter system. Consequently the system cannot remain with the development of trade and industry. It is sometimes said that the foreign trade of a country is like barter, for there the imports and exports pay each other without any money being passed.

Is foreign trade barter? But this is not quite accurate for although no money is passed the imports and exports are both calculated in the terms of some money, and thus the intermediate stage of calculation on the basis of money is present there as well. It is an accident that no money is actually paid and entries against each other are balanced, otherwise the position is really as if money had passed hands. Further, the interposition of money calculation makes the double coincidence of barter unnecessary in international exchange. A nation may very well purchase from one nation and sell to another, and yet settle the accounts without paying more as we shall see later.

CHAPTER XVIII.

MONEY EXCHANGE.

To escape the difficulties of barter they invented a new mode of exchange. We remember that the greatest difficulty was the coming together of two persons with the right commodities to exchange. This was now avoided by the adoption of a general medium of exchange. Probably what happened was that some day a person exchanging his goods with another got a large quantity of some such product as wheat, a commodity which everybody likes because of its general use, and as the quantity was large it was not used all at once but remained with him, and when he wanted something else he used the same wheat for the exchange, and other persons also freely accepted wheat as it was useful for them. Thus, perhaps, the discovery of a general medium of exchange was made, and once made it must have spread far and wide because of its usefulness. Money is, then, that commodity which is accepted generally in exchange for all commodities, or in other words is the common medium of exchange.

This characteristic of a common medium makes certain other things necessary. In the case of barter when a commodity was exchanged for a commodity the other commodity was taken because it was wanted for use immediately. Money is taken not because it will satisfy some want directly, but because it will enable us to get what we want as soon as we

come accross a person who has the desired thing, and we shall be able to get that thing even though we do not possess what he wants. We do possess money, which he will take, and with which he will purchase his own requirements later. Therefore, it is necessary that we should be able to keep that money with us for the time of waiting till we purchase something with it, or in other words the money

should act as a store of value.
Store of value.

When we use that money at a time subsequent to our acquiring it, it is necessary that its value should remain the same in the interval so that we may get as much value when we purchase as we gave when we sold our commodity. Similarly if a person takes our commodity but promises to pay the money a few days after, and we agree to it, as we have no immediate necessity for money, then after those few days the money we receive should be of equal value to the value of the commodity which we sold. It is

the standard of deferred payments or payments postponed to a future time.
Standard of deferred payments. Therefore its value at both points in time must be the same. If it is not then

some party will bear the loss. If the value is more than before then the person who makes the payment will suffer, if it is less the payee will lose.

Then money should be such as may give us the value of all kinds of things, whether of
Standard of value and common measure of value and account. value of all kinds of things, whether of small value or large value. For this purpose it should be capable of performing two functions ; it must act as a standard of value, and secondly it must work as a common measure of

account. Thus in measuring length, a foot is the standard and then any length can be measured in terms of the foot, whether it be less or more than a

foot. It may be half a foot or six feet, or as it is more conveniently expressed, it may be six inches or two yards. In other words money must provide the measurement of a unit of value and then that unit must be capable of being multiplied or sub-divided in the form of money, so that commodities of all values may be measured and a proper account may be kept. This account becomes more important where the payments deferred by a person to some other time are several, then all the payments can be added into one. It should be noted that these functions of money become necessary because money is not taken for direct use but merely for being kept and used to purchase any and all commodities, or is used as a common medium of exchange.

To perform these functions efficiently a good money should have several qualities.

Qualities of a good money—	To be a common medium of exchange
Acceptability.	It should be generally acceptable, for then alone it will be able to act as a means of exchange for all commodities possessed by different persons. As a person taking money in exchange for his commodity takes it not for direct use but only for passing it on to another in purchase of his goods, he will not look very minutely to the quality of money he receives, because all that he cares for is that the money should be accepted by others also. Therefore, if the money is such that its quality is perceived only if looked at carefully no body will accept it, as it will be too great a trouble. Money should be
Cognizability.	such as can be easily recognised so that nobody may be deceived.
Further the	quality of money should be uniform so that much trouble may not
Uniformity.	have to be taken in distinguishing

the values of different qualities. If it is not uniform but is of different qualities then the value of commodities will be different in the terms of the different qualities and this will introduce an inconvenient complication into the accounts. So a money

Valuability. which has a uniform quality will be preferred. Then the money should be valuable, then alone it will be accepted in exchange and will be able to act as a standard of value; anything cannot be money, *e. g.* saw dust cannot be used as money. It should be not only valuable but should be capable of being

Divisibility. divided into parts of equal value so that it may act as a common measure of value and account for all values small or great. A diamond is very valuable but if it is divided into parts the value of all the parts taken together is not equal to the old value of the diamond, for the value of a diamond increases more than proportionately with an increase in its size. Further as money is used as a general medium of exchange, a standard of deferred pay-

ments and store of value it should have the qualities of portability, durability, and stability. It should be portable so that it may be taken to any place where we expect to find our desired things. In barter a person had to carry a cap for exchanging it with a book. If he now first exchanges it with money, which is wheat, and he gets twenty seers of wheat then he will be at a disadvantage, for now he will have so heavy a weight to carry to the bookseller. Therefore, money should be such as may have a large value in small bulk so as to be easily portable. Then it should not be perishable. If ice is used as money it will melt in

no time and the value will be lost. To guard against such a happening it is necessary that the commodity used as money should be durable, indestructible or imperishable. It should not be merely capable of being stored but should also be stable in value. If it is merely of passing value, dependent upon the whims and fancies of the moment then it cannot be a fit object for storing value. Money should be such that it is not only generally acceptable at the time but is likely to remain acceptable in the future also at the same value as before. Only then will a person be willing to accept it in exchange for all his commodities, even though he does not want to use the money at once, for he can use it whenever he likes without any diminution of its value.

Durability or indestructibility. A substance may have these qualities and yet may not be adopted as money because of its scarcity, *e.g.* platinum. It should be available in sufficient quantities to serve the purpose of a currency. In the case of metals used for money another quality required is that of malleability, so that the metals may be easily made into coins and may receive a good impression.

Stability.

Availability.

Malleability.

Many things have been used as money in former times. At places even oxen have been used as money. But they clearly suffered from certain disadvantages. They could not be easily portable or divisible. To store oxen also would mean feeding them. Other forms of money have been hides, wheat, tin, copper, silver, gold and many others. In the case of hides they cannot be generally accept-

Forms of money.

Oxen.

Hides.

able, all people will not like them, nor have they any great value. Grain is no doubt valuable and is generally useful and acceptable. It

Grain. is also divisible, as it may be divided into any number of parts of equal

value. But it is not easily portable, nor is it indestructible like the metals. Wheat is liable to rot. Then its value is not likely to be stable for the value will depend on each year's production, when the crops are good wheat will be plentiful and so less valuable. If the crops are not good wheat will be scarce and its value will be great. Still it has been used as money more than many other things excepting the metals. Even now in the villages in the interior villagers do often purchase things from the vendors with wheat. Village labour is still paid by the customary quota of grain in numerous villages. But these are now rather the exceptions. By far the overwhelming majority of transactions are effected with the help of metallic money or its representative, the paper money or notes.

Amongst the metals tin and copper suffer from many drawbacks. They are not so attractive as gold and silver, nor are they so valuable. Then they are not so portable. Gold and silver carry great value in small bulk, whereas a great quantity of tin and copper will have to be carried for small values. Moreover tin cannot be so well impressed with a design or certificate of value to make it a coin. It also rusts and is not so durable. So gold and silver have been generally accepted as money and are issued in the form of coins with a certificate of value minted on them by the government.

With the introduction of money the old transaction of barter or exchange of commodity for commodity is now split up

The transactions
sale and purchase.

into two parts. the sale and the purchase. A person wanting to exchange his commodity with some other one, which he requires for his use, will first sell his commodity for money, and then with the help of that money he can purchase the commodity he requires. He can do more, he can use only a part of the money to purchase just as much of the commodity as he requires, and use the rest of the money for purchasing other commodities for his use. He could not have done so in the case of barter. There he would have got a commodity in exchange. If he did not want to use the whole of it at the time, it remained with him useless, and he

No personal
contact neces-
sary.

could purchase something else with it only by going through another transaction of barter. Further as money is a general medium and measure of

exchange, it can be used any where and even from a distance for purchasing things. All that is required, is that one should know how much money the distant producer wants for his produce : send that money and get the product. This facility has increased the number of transactions, as all the difficulties and delays of barter are avoided. Now

Larger and
more transac-
tions possible.

even large works can be undertaken and huge transactions made, for the money required to pay for them can

be collected in any quantities.

Money is accepted as a general measure and medium of exchange because it is generally valued. So money has its own value. If it were not used as

Metallic value
of money.

money it would have that value still. Though gold or silver may not be used as money, still people will purchase them for making ornaments, plates and other things. When they are used for currency, the

demand for them is increased and so their value also is increased in the market.

Pieces of these metals are made into coins *i. e.* stamped with a certificate of value by the government so that it may not be necessary to weigh the pieces each time they are used, otherwise it would have been very inconvenient. The function of stamping is performed by the government on account of its high authority. If it were done by a private person that person might make an illicit gain by stamping a wrong certificate. Such a certificated piece is called a coin. Every coin, or other money, has an intrinsic value which is the value of the material of which that money is composed. It is the market value of the piece of metal. It has also a currency value or the value which it carries as a unit of money, or in other words the value which is stamped or certified on its face. In a good or sound money the intrinsic value and the currency value are equal. It is said to be good for then the money performs its functions properly. It is a common measure of exchange and a store of value and so as such it should contain the value which it professes to contain, for then alone it will be a current and an accurate measure of the value of other commodities, with which it is exchanged, at all times. But sometimes it is not so. When the metallic or intrinsic value is greater than the currency value it is called heavy money. Such money does not remain in circulation for a long time, because in circulation it carries less value as currency than its metallic value, so it is melted and sold away. Sometimes the intrinsic

value is slightly less than its currency value, then it is called light money. Such money is bad money for it does not give what it professes to give. This is due to a mistake in taking the proper weight in minting, or is due to wear and tear. Besides these the money used in a country has also an exchange value or a value in terms of the currency of some other country, as for example the value of the rupee in terms of the English currency is now-a-days 1s. 6d.

The value of money means the commodities which one unit of that money can purchase. The value of the commodities is measured in terms of money, and the value of the money

The meaning of value of money.

used is equal to the commodities got in exchange for that money. Just as the value of a commodity is said to change as a larger or smaller amount of money is required to purchase a given amount of that com-

modity, similarly the value of money is said to rise or fall according as one unit of that money purchases a larger or smaller amount of the commodities than before.

Rise or fall of this value.

If money becomes more valuable, or purchases more it is said to be appreciated, and if it becomes less valuable it is said to be depreciated. The

Appreciation and depreciation.

causes of this rise or fall in the value of money may be several. When the price of the

metal of which the money is made rises the value of the money also

Causes.

will rise, and if the value of the metal falls the value of the money will fall. If the gold production, or the production of silver is decreased their price will rise ; if

Change in the value of the metal.

it is increased the price will fall. Or if people begin to use much gold or silver in making ornaments thereby increasing the demand for either metal, the price of that metal will rise ; and if they begin to sell their ornaments, the supply of the metal will be increased in the market and its demand decreased, so its price will fall. The same results will

Increase or decrease of goods.	follow if instead of an increase or decrease of the metal used as money there is an increase or decrease of goods, or commodities. In such a case
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the value of the commodities will vary. If there is an increase in their supply, then their value in terms of money will fall that is they will become cheap ; or in other words the value of money will rise, that is, a unit of money will now be equal to a larger quantity of the commodities than before. If there is a decrease in the supply of commodities then they will become dear in terms of money or money will become cheap in terms of commodities. The same result will follow if the dearness or cheapness of the commodities is due to an increase or decrease of the demand for them.

A third cause of the increase or decrease in the value of money is the inflation or deflation of money, or the undue expansion or contraction of a currency.	
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A money is said to be inflated when its quantity in the currency is more than is required to affect the usual transactions. Thus even though the supply of the commodities as well as of the metal used in the money is the same, still if the coins, or other form of money in currency, are greater than before the value of money will fall. People will not higgler very much with the dealer, but will readily give the price he wants if they have enough money..

Moreover they will want to purchase more and enjoy their good fortune. This will have the same effect as if the demand for the commodities were increased, and so their prices will increase and the value of money will fall. If on the other hand there is less

money than is required to effect the usual transactions the money is said to be deflated and its value increases. When a person has not much money he thinks twice before he spends it, and so his demand for things decreases. At the same time the dealers also require money and as it is difficult to get, they become anxious to get it even though they have to sell their goods at a little lower price. The result is that the prices of things in terms of money fall or the value of money increases. This is in accordance with the law of demand and supply, for when the amount of money is excessive in a currency its value should fall: when its amount is less its value should naturally rise. When stated as a tendency

that "prices vary in proportion to the quantity of money in circulation, other things being equal" it is called the quantitative theory of money. In reality, however, the fixing of the proportion is not quite so easy, specially under modern conditions when credit has expanded so much that the calculation of the total work done by money and credit is nearly impossible. The law may be true only if all the credit instruments are included, as they also act as an increase of money; and then the efficiency of the whole, money and credit, must be known, for what affects the prices is not hoarded money but the money which is doing work. The effectiveness of such money is measured by the total amount of transactions effected by it. This active money

Quantity
theory of
money.

Effective
money.

is called effective money.

But it should be remembered that often brisk trade and high prices, and slack trade and low prices may co-exist. In this case the prices are governed not merely by the effective money but also by the conditions of demand and supply of the commodities themselves. For such matters the usual phrase "other things being equal" provides a safeguard. The effect of increase or decrease of money is easily demonstrated in the operations of deflation and inflation. Therefore, the value of money may change not only because of a change in the condition of the demand and supply of its metal, or of the money itself, but also by a change in the demand and supply of the commodities. In the former case the cause of the change is in the money itself, while in the latter case it is in the commodities, for it is really they that change. A test to find out whether the change is due to a change in the money or in the commodities is that if there is a general change of prices in nearly all the commodities, the change is of nearly the same extent, and if there is no other general cause present, then the change is probably due to the conditions of the money supply. There may be a change in the supply or the demand of the money metal or of the money. If the increase in prices is not general but is only in some commodities, then probably the cause of the change is in those commodities themselves.

We have considered above the inflation or deflation of money or in other words the supply of money, but the value of money may increase if the demand for money is increased, and may decrease if the demand decreases. The demand for money consists in the number of transactions waiting to be effected with the help of money. This number does not depend merely upon

the supply or demand of commodities, but on the general development of trade and commerce as well as industry, or in general on the increase of the economic activities. Development of communications, adoption of efficient methods of production, all lead to an increase of economic activity and so to the increase of the work to be done by money. On the other hand economic crises, famines, isolation and all causes which make people idle, and which decrease their economic activity lead to a decrease in the demand for money. This is the reason why in the harvesting seasons in India money is required more than in the other parts of the year. One indication of the money becoming scarce, or its value rising, or its demand

Rate of interest increasing is the rise in the rate of
the measure. interest, and every year at the harvest
time the bank rate is higher than it is
in the rest of the year. This rise of interest rate is not
merely an indication but also a kind of measure of
the scarcity of money : the higher the rate of interest
the greater is the scarcity.

But from whatever cause the change in the value
of money might proceed the change is
Importance of stability of value. not desirable. It is very important
that the value of money should
remain stable. Money has to fulfil
two functions, the one is that it acts as a store
of value and the other is that it acts as a standard
for deferred payments. If its value changes between
the two points in time then the person who has
stored it will suffer a loss or reap a gain as the value
of money falls or rises. When a person has to pay
another the sum he borrowd sometime back, then if
the value of money has fallen then the debtor is the
gainer and the creditor is the loser, and if it has risen,
he pays more value than he borrowed, although he

pays the same amount of money. We should remember that money is merely a medium of exchange. It is not taken to be used directly for eating or satisfying any other wants, but it is taken for purchasing other commodities. So when money is borrowed, what is borrowed is the power of purchasing things for satisfying the wants, and when it is repaid the same power should be repaid, but if the value of money has changed in the meantime, this power will be changed. It will be greater or less as the commodities commanded in exchange are more or less than they were when the money was borrowed. To keep this power at the same point it is necessary that the value of money should be kept stable. Various schemes to do this have been proposed but none has been quite successful, because it is difficult or rather impossible to regulate the conditions of demand and supply of all the commodities.

One method, index numbers, has been proposed not to regulate the prices of commodities
Index numbers. but to show the rise or fall in general of the prices, so that if the value of money is varied according to this variation in prices for the purpose of calculating what the debtors should pay, then they will be paying nearly the same purchasing power as they borrowed. If the index number has increased, showing a rise in prices, say of 50% the value of money will be taken to have decreased by 50% and so the debtor should pay so much more. If the index number has fallen the value of money is said to have increased and so the debtor should pay so much less to pay the same purchasing power. The index number, however, is not used to determine the legal relation of debtor and creditor. It is neither very reliable, for all the hundreds of commodities cannot be included in its calculations, nor is it quite easy to get accurate data

of universal application. Index numbers prepared at different places vary, and to appreciate their value it is necessary to know the particulars of their calculations, the commodities selected, the period of average, and the weightage given. But the index numbers do indicate the general rise or fall of prices in a very convenient way, and for this purpose they are very generally used. To frame an index number first a number of commodities, which are most generally used, are chosen, and their prices at a given period A are taken and added. But all commodities are not equally important to the general consumer, and so to avoid any undue influence being exerted by the

Weightage. prices of all commodities being included and the whole being simply added up, the prices of important commodities are multiplied by certain figures determined from the point of view of their importance. Thus the price of food grains will be given this weightage as they form a major part of the general consumption. This total is taken to represent 100. Then at any other period B, the prices of the very same commodities are added up again and the total is expressed as a percentage of the first total. Suppose it is 140, then the prices have risen 40% in the period A to B.

There is, however, one fact which is very important from this point of view and that is being a currency metal. A metal which is used as a currency is more stable in value than a metal which is not so used. Take the case of gold. The annual demand for gold is made up of two classes of needs : (1) the needs of making ornaments, plates or using for other artistic purposes, and (2) the needs of the currency. The gold which is used for the first purpose is consumed. It does not

Importance of
being a cur-
rency metal.
Its value
remains
more stable.

return next year to the supply of gold in the market. Next year the supply of gold will be determined by the production from the mines and to some extent from the sale by persons wishing to sell the gold they possess. The new needs will be the fresh needs under the two heads. For the head (1) there will be new needs and new supplies, and so any increase or decrease in supply in comparison with that of the last year will be easily felt. But the things will be different in the case of head (2). In that case the gold used for currency remains as gold metal in the form of coins. It is not used up in making things to be used privately, but the supply remains in the market in the form of coins. The amount of gold in the currencies of the world is so great that any moderate increase or decrease in the yearly supply of gold does not appear to be very great when compared with the huge amount already in supply in the form of currency metal. The difference in the yearly supply of the metal will be so little in proportion to the great existing supply, which will be constant for the two years, that the rise in its price will not be large. Not only will this be so in the portion of the metal used for currency, but the supply of the metal in the currency system will also moderate the price of the metal used for artistic purposes. Suppose, for instance, that the yearly supply of gold decreases and so its value increases both for arts and industries and for currency. But the currency value of the metal in the form of coin will remain the same. The result should be that, that the coin, as also an equal piece of the metal, should purchase a larger quantity of commodities than before. If the needs of the arts and industries are greater than those of the currency then some coins will be melted to supply gold metal for industrial use. If this is not

done then the value of the gold metal or bullion will increase more than that of the gold coin, for the need of gold as metal or bullion is greater than its supply in that form. This will be an anomalous position. As gold coins contain as much gold as they profess to contain they will be melted into bullion or metal and sold as such. This will increase the supply of gold as bullion for industrial purposes and the price of the gold as metal also will not rise high, and the value of the whole metal will be more stable than it would have been if there had been no gold in the form of currency, from which this increase of metal supply could have been derived. Conversely when there is more gold than is needed for industrial purposes it is absorbed by being turned into gold coins, a slight increase in the coins will not make an appreciable difference in the value of the money. Again if the need of currency is great and the production of gold is not so great, then gold from ornaments and plates also is turned into coins and the price of gold and value of the gold money does not rise so much as it would have done otherwise. Thus this currency supply of the metal keeps its value stable.

Disadvantages
of silver.

Silver is at a disadvantage in comparison with gold in this respect. Gold is the currency of most of the civilized countries of the world. Silver is the currency of only a few countries like India and China ; and so the currency supply of gold is much greater than that of silver. Therefore the proportion of the yearly production of gold to the currency supply of that metal is not so great as it is in the case of silver. The result is that any change in the yearly supply of gold will not be so appreciable because of its small proportion to the existing

available supply as it will be in the case of silver, and so such a difference will cause a greater difference in the price of silver than it will cause in that of gold.

By efficiency of money is meant the amount of work which a given amount of money performs, or the value of the transactions that it effects. The principle is the same as it is in the case of efficiency of labour or the efficiency of land. When money is lying idle in a hoard its efficiency is nil, but when it is continuously passing from hand to hand in trade dealings its efficiency is great. This efficiency increases with an increase of trade and industry or with a general advance of economic activities and prosperity. An increase in the efficiency of money also increases its value in terms of commodities as it acts as an increase of the demand for money. Conversely a decrease of efficiency decreases its value. The greater the supply of money the smaller the value of money, and the smaller the supply the greater is its value. The supply may be increased either by inflation of money or by a decrease of its efficiency, when there is not much work to do for money, or in other words when the demand for it is not great and it is lying idle. The supply is decreased by deflation or contraction of currency or by the increase of its efficiency or an increase of its demand so that money becomes scarce in comparison with the demand for it, and a small amount is obliged to do a great amount of work, or in other words is used to effect many transactions.

There is a very important law relating to the circulation of money called Gresham's law after the person who enunciated it. It states that when two kinds of money are in circulation and one of them is heavy in comparison with the

Gresham's
law—light
money drives
out heavy
money.

other, which is light or bad, the light money drives the heavy money out of circulation. The rationale of this law is quite easy to understand. As has so often been said before, money is required not for direct consumption but it is taken only to purchase goods, and so long as a money can purchase the same quantity of commodities as another it is immaterial whether it is heavy or light. If it is heavy it will not purchase more, if it is light it will not purchase less than the value certified on its face. Therefore it would not be very wise to use the heavy money for purchasing commodities while it will purchase as much only as the light money: it will give away greater metallic value than the light money. It would be profitable to use the light money for purchasing commodities, and melting the heavy money for being used as metal or bullion. So every one will reserve the heavy money and use the light money in his transactions and so the heavy money will be driven out of the circulation: it will disappear, and will go either to be hoarded or to be melted. Light and heavy as used here are only relative terms. Even in two light monies if one is lighter than the other, then that other will be heavy in comparison and will be driven out of circulation. Indeed we are all familiar with the popular habit of reserving new beautiful coins, and of issuing in payments or "uttering" the old ones. There is no profit or loss in this case, and new coins are hoarded because they are more beautiful. It is very difficult to drive light money out of the circulation unless still lighter money is used. Till then all additions of money go on increasing the supply of currency, and this may increase the prices by making money redundant. Light money remains in circulation because if it is melted the metallic value obtained is less than its currency value. In such a

case a government employs other means of contracting the currency. Thus it may issue a loan for its needs. *i. e.* invite people to lend it money on interest. This money will be paid in subscribing

A way of withdrawing light money. for the loan and the currency will be contracted or the supply of money in circulation will be decreased or deflation will occur. The government

may then use this money in some productive work like building canals or railways. The money will again be paid out to the labourers and suppliers of materials, but it will not be redundant, for it will be doing work. The increase of economic activity will increase its efficiency by increasing the demand for it. or its supply will be decreased in comparison with its demand. Moreover in thus reissuing the money the government may also issue new and better money and discard the old one.

Any thing which is adopted as money and comes into current use as such money forms a currency. A system of currency includes several forms of money and the whole combination is called a system. A system of currency may be composed of metallic money or paper money, and generally it is composed of both, for a pure paper currency has been rather an ideal only. There is another kind of currency, the credit currency, which has been given rise to by the modern developments of commercial and financial practice. It is not a currency properly speaking, as it is not legal tender, and it is accepted only on account of the credit of the issuing parties by those who know them, but in practice it acts as an addition to currency. Credit instruments consist of bills of exchange, cheques, and other negotiable instruments. They are used in the place of money for paying off liabilities in trade.

Metallic currency is composed of several kinds of metallic coins minted by the government either for the public or for its own use. We have seen that a coin is a piece of metal on the face of which a certificate of its value is stamped under the high authority of a government. A good coin is of full value, *i. e.* its metallic value is equal to the value shown on the face, unless it is a token coin, and so is meant to be of less intrinsic value than its currency one. For a good coin a circular shape is preferred as it has no edges and so does not wear out so soon as a rectangular coin will. The stamp on the coin may perform other functions besides certifying the value of the coin. Its design can record the history of the time at which it is coined; and the character of the design will show the artistic development of the country. As a matter of fact nearly all coins do perform these functions. They generally bear the name and often the effigy of the ruler of the time with the year of coinage. But besides the development of art, which the delicacy of the design will indicate it also serves to protect the coin from being counterfeited. Delicate designs can be impressed only with highly specialised machinery available for government's mint only. A private person cannot afford such a machinery, nor will the law allow him to possess it, lest he should begin counterfeiting coins and by giving out a money of lower value with a certificate like that of the government one may cheat the public. Another device adopted to prevent the tempering with coins is

Milled edges.

the practice of milling the edges. This makes it impossible for a person to clip even a slight portion of the coin. If he does so it will be discovered at once on account of the injury to the milling. Besides clipping coins are "sweated" when they are put in some corrosive solution to extract some metal from them. Such coins in India are often termed "Tezabi". Another way is of shaking a number of coins in a bag when a dust of the metal produced by the friction remains in the bag.

Such coins may be standard or subsidiary. A standard coin sets the unit of value in the system just as a rupee is in India. It fixes the standard of value by prescribing one unit of value. It is generally unlimited legal tender, that is it may be legally offered in payments of any amounts. It is the chief money and performs all the functions of money : it is a store of value, standard of value and of deferred payments, a common medium of exchange and measure of account. For this reason it is also the full value coin, or its metallic value is equal to its currency value, so that nobody may suffer any loss by storing it or by using it for deferred payments.

Subsidiary coins are those which form sub-divisions of the standard unit. They are required only for payments of less than one standard unit, for if the payment is equal to one standard unit, the standard coin will be used. So these coins are only limited legal tender, or can be offered in payments of amounts limited to the value of one standard coin. Thus one anna, 2 anna, and 4 anna pieces in India are

limited legal tender up to one rupee and nobody can be forced to accept such coins for payments of more than one rupee. A person may accept more to accommodate another but he cannot be legally compelled to accept them for more than one rupee. Because subsidiary coins are used only for a limited purpose and are not used as a store of value or standard of deferred payments, there is no harm, if their metallic value is less than their currency value, and such is generally the case. Coins, the intrinsic or the metallic value of which is kept intentionally less than their currency value

Token coins.

are called token coins, because they are merely tokens or signs of their currency value and do not really contain metal of a value equal to their currency value. So the currency value is merely a nominal face value, it is not their intrinsic or metallic value. There is a special

Advantage of making them token coin.

advantage in making them merely token coins. They are subdivisions of the standard unit, and so the ratio of the division must always be the same. If the ratio changes then they will no more make a proper subdivision and will be useless as such. If they were full value metallic coins then if the value of their metal increased, their ratio with the standard of unit would vary. Thus suppose nickel and copper become more valuable ; and if the nickel in one anna piece were equal to one anna in value, then on the increase of the price of nickel the one anna piece will be worth more, and it will no more be equal to one-sixteenth of a rupee. Similar would be the case with a pice. Therefore the currency value of subsidiary coins is kept sufficiently higher than their intrinsic value, so that no increase in the intrinsic value may disturb the ratio with the standard coin.

These coins are stamped at the government mints.

Mints—open. The government declares that so much gold will be a unit of value and anybody may take that amount of gold and get it turned into a gold coin. When this right is open to the public the mint is called an open mint. We should remember that money is money because the community likes it generally and everybody is willing to accept it in exchange for his goods. This acceptance proceeds from a person's liking the money and not from any imposition or compulsion from outside authority. If it is not so, if the acceptance of money is due to a compulsion exercised by some body else, then the exchange will not remain free exchange. This will be against the principles which led to the evolution of money. So the final authority of the acceptability of money is the community which uses that money. The minting work is entrusted to the government only because the government is the representative of the whole community, and is more trustworthy than any private agency. Therefore the government simply mints the standard money in as large a quantity as the public wants. If the trade needs a good deal of money they will take the metal to the mint and get it coined.

If the trade is slack and much money is not wanted they will melt the coins into gold and sell it as bullion. They will not suffer any loss in either way because the currency and metallic values of the coin are equal. Thus an automatic expansion and contraction of currency is provided by this policy of an open mint, and as much money remains in the circulation as is needed for business, so the value of money remains stable, for if it had been more or less than the demand for it or the work to be done by it then the value of money would have varied. The

open mint policy, therefore, keeps the value stable automatically without any interference by anybody.

But this open mint is possible only in the case of the standard coin which is a full value coin. Closed mint.

The conditions will be different in the case of token subsidiary coins. Their metallic value is less than their currency value, and if everybody were allowed to take his metal to the mint and get it turned into token coins, then all will be making profits. They will take metal of a small value and get coins of a greater value, and thus reap an undeserved advantage at the expense of the public. Therefore, they are minted only by the government as a trustee for the public. Private persons can go and cash their standard coins for these token coins if they want change. As this small change is supplied only by the government, the government can demand any

price for it, and so the government can fix a monopoly value for these coins; thus the higher currency value

of these coins is maintained in spite of their smaller metallic value. In this way by the closed mints policy for token coins their ratio to the standard coin is kept secure. The profits of the coinage go to

the government which represents the whole society. As subsidiary coins are required only to a limited extent the profits are not very great. Its social utility.

In coining it is necessary to use some alloy to harden the currency metal so that the coin may receive a good impression. Alloy.

Gold and silver are a little soft and malleable. There is a standard weight fixed for the

coin but a small allowance is made for mint mistakes above and below that weight. This is called the remedy allowance. Remedy allowance.

allowance. In modern mints, however, the work is so accurately done that this allowance is not needed in practice very often. Generally 11/12th fine metal and 1/12th alloy are contained in a standard coin. The value of the coin is equal to the value of this 11/12th fine metal excepting where brassage or seigniorage are charged. Brassage is

Brassage. a charge to cover the cost of coinage.

In practice it does not make much difference as it is very small in proportion to the total cost of the coin. Brassage forms about 1/5% of the value of a coin. The practice about it is different. Some countries do not charge this amount and the charge is borne by the government as a public service. This is also fair as the government

Gratuitous or free minting. takes the profits of the token coinage. Where no charge is made it is called "free minting." In others the charge is made. Practically, however, there is not much difference as the increase in value is so small.

Seigniorage. Seigniorage is a charge in addition to the brassage and is an element of profit, a tribute to the government's being charged, a relic of feudalism. But this is now seldom the case. Sometimes the term seigniorage is used to include the brassage also but in reality seigniorage is a charge different from and in addition to brassage. If in a coin less than the full weight

of fine metal is put, and the alloy is increased the coin is said to be debased.

Debasement. It is done when the government wants to issue a cheaper coin : but the practice is not a desirable one and causes a revulsion of feeling in financial circles excepting when the coins are token coins.

These various coins combined in one organised

Different systems. system form a currency system. A currency system must provide money for all kinds of transactions, great and small and so contains several kinds of coins standard and token. It is a monometallic system when the metal used for its standard coin, the unlimited legal tender, is one only either silver or gold. Some countries use silver and others use gold.

Most of the civilized countries use gold for their standard coin, but a few like China and India use silver for this purpose. India was not monometallic in theory till recently, for gold sovereigns also were an unlimited legal tender coins in India, but they have been demonetised under the new law. They are no more legal tenders in India and the Indian system is now monometallic. The rupee is not a standard coin but is a token coin, although it is an unlimited legal tender. What is to be noticed here is that most of the countries of the world are gold standard countries, and so the silver standard countries are at a disadvantage, as their currency is not in harmony with the currencies of the world, and everytime there are dealings between two such countries

Divorced from world currencies. there is complication of accounts for the exchange value between silver and gold has to be calculated. Moreover the influence on the prices brought about by the conditions of the money supply will be different in the two cases, because in one case the conditions will be those of silver and in the other they will be of gold. And so far as these conditions are concerned the value of gold will be more stable than that of silver. The demand for silver is for a great part for art and industry, while

Industrial value. its currency supply in many countries is in the form of light or token coins, the melting of which is not profitable and so this supply is not always available to moderate the price of the metal in case of need. The result is that any appreciable difference in the supply or demand of silver even for art and industry is likely to raise or lower its price, and with it the value of the money of silver using countries will change. This will also change the exchange value of the silver money in terms of gold, thus disturbing trade. To guard against this the Government of India has made the rupee a token coin and maintains its value by a monopoly. Only the Government can issue it, its minting is not open to the public. But this action in case of the country's unlimited legal tender makes an artificial control of the currency necessary, and the system is not so automatic as is the case with an open mint standard coin policy. Artificial regulation sometimes lends itself to artificial manipulation and depends upon the whim and caprice of the man in charge. This introduces an element of uncertainty in business transactions which is detrimental to trade and industry, and we find that the history of Indian currency is one long tale of difficulties, troubles and crises, of committees and commissions appointed to re-examine the position and make suggestions.

Other defects of silver as a metal for the standard money in comparison with gold are

Bulky and less attractive. that silver is more bulky than gold and so is not so portable. What is more is that silver is not so attractive in appearance, and is not so liked as gold is. The very appearance of gold pleases the mind and makes one feel satisfied with even a slight shade of enthusiasm.

On the other hand gold has all the opposite advantages. It is the currency metal of the world and so its currency supply is great making its value more stable than that of silver. Being generally used as a currency, a gold currency harmonises with the currencies of the world. There is no necessity to make a gold coin a token coin to guard its exchange value. The gold unlimited legal tender can be full value coin working automatically under an open mint policy. It is more attractive and valuable and receives a better impression than silver. All these qualities have made gold the currency metal of the world.

Where gold and silver both are used for the unlimited legal tender of a country the system is said to be bimetallic, provided that both the coins gold and silver are not only unlimited legal tender but are also full value standard coins, so that they can be allowed to be minted for the public. It is often termed a multiple legal tender system, monometallism being called the single legal tender system. In this book, however, these two terms are used to indicate the currency of one or more coin as unlimited legal tender. The advantage of a bimetallic system is what is called compensatory action.

Suppose there is a gold and a silver coin. The ratio between their currency values is, say, 1 to 10 or $1A=10B$. Supposing gold becomes more valuable than silver than the ratio of the metallic value of the two coins will become different. Supposing it becomes $1A=11B$. But the currency ratio fixed by law will remain the same, and in currency $1A$ will still be equal to $10B$. So it will be more profitable to sell A

as gold metal and purchase silver metal with it, and then get that silver coined into B. In this way 1A will procure 11B. Those who require money will now purchase silver with their gold and turn that silver into coins. The circulation will be composed entirely of silver coins and gold will be driven out and sold as metal, as Gresham's law tells us. The result will be that the supply of gold seeking sale will be increased while its demand will be decreased, because it will not be wanted for currency in that country, and so its price will not rise so high as it would otherwise have done. On the other hand the demand for silver will be increased, for it will be the only metal used for currency, and so the price of silver will rise. The fall in the value of gold and the rise in that of silver will tend to keep the ratio of the metallic values of gold and silver coins at the old figure. Thus the rise of gold will be compensated by that of silver. Similarly if gold falls in value and 1A becomes equal to 9B in metallic value, then B will be sold to purchase gold and turn it into coins. The circulation will then consist entirely of A and B will be driven out. The value of B will not rise very high and A also will begin to rise and there will thus be again a compensatory action. The effect will be that the value of the country's money will remain stable as a whole and neither gold nor silver will rise very high. Moreover when two metals are used for money the supply of both together is not likely to vary so much from year to year as the supply of one metal and therefore the money value of the combination will be more stable than it would be otherwise.

Composite
supply of silver
and gold—stead-
ying affect.

While a bimetallic system has this advantage, it has also many disadvantages. The first is

Its disadvantages—really always monometallic. that although in theory and law the system is bimetallic in practice it is always monometallic, for in circulation only one metal will remain, and that also the cheaper one. The currency of such a country is always debased or Always debased. of less value than those of the other countries. While all the countries reap the advantage of the stability in the value of gold and silver, as gold and silver have a world market and so the moderation of the price spreads over the whole market, the country which adopts this moderating device of compensatory action in a bimetallic system bears the whole cost, as its currency is always composed of the cheaper metal.

As the money is composed of the cheaper metal it will purchase a smaller quantity of Prices always inflated. commodities than its ratio should make us expect it to be able to do. Take the above example again. The currency ratio of A and B is 1 to 10. Then it becomes 1A 11 B. Formerly A purchased 20 units of commodities and 10 B also purchased the same. Now if A purchases 11B, it purchases 22 C. The currency will now consist of B alone, and 1B will purchase only 2 C, but from its currency ratio with A it should purchase $22/10$ or $2\frac{1}{5}$ C. Thus the price in terms of B will be inflated by 100/o. Again if A becomes equal to 9 B, then if 9 B purchase 1 A, and if 1 A purchases 20 C then 9B will purchase 20C. Formerly 10B purchased 20C. Now 10B will purchase $22\frac{2}{9}$ C, and on the old ratio 1A also should purchase so much but it will not. So the prices in the terms of the cheaper metal will always be higher than they will be in terms of the dearer metal.

Other defects are that in this system there is a constant coining, now of one metal and now of the other. A greater defect still is the sentimental depression which is caused whenever silver becomes the currency under the compensatory action. Trade and economic activities are influenced by general enthusiasm or depression, and the return of silver causes a set back to the economic life of the country. France was bimetallic but when gold fell in value and the French currency became of gold then France did not like to lose this advantage and so became monometallic. In reality bimetallicism can be successful only when all countries adopt it, for then no one country will be penalised, all will reap the advantage and will bear the cost. But of this there is no possibility.

France is said to possess a "limping standard" which is bimetallic in theory, and in practice also silver five Franc pieces are sometimes paid out, but really it is now a gold standard country.

Even a monometallic currency system may be either single legal tender or multiple legal tender system. It is single legal tender system when one coin is the unlimited legal tender, and it is multiple legal tender system when there are more than one coin used as unlimited legal tender. In India the rupee and the eight anna silver piece are both unlimited legal tenders. A bimetallic system is on the other hand always a multiple legal tender system for the very conception of bimetallicism requires that there must be at least two unlimited legal tender coins of the two metals.

Ricardo suggested "a safe and secure currency" the principles of which underlie the Indian Gold exchange. system, and are discussed below. It is and bullion standard. called a gold bullion standard when only gold ingots or bars of bullion are exchanged for internal currency both for external and internal purposes ; it is a gold exchange standard when the purpose is to maintain the foreign exchange by converting the internal currency with gold at a fixed ratio.

The underlying principle of this system is that as money is used only as a medium of exchange, and not for direct consumption, so anything which is generally accepted can act as a medium of exchange even though it be mere paper. This general acceptance is possible to be created even for paper money if there is the credit and authority of the government behind it. It is done in the case of the paper notes, but notes circulate in company with metallic money which they only represent. Still they show the possibility of paper money doing the work. And this is quite reasonable and scientific also, for money represents only a power of commanding, or a claim to, a certain amount of wealth represented by its value. This claim may as well be registered in a certificate on paper, and may provide the holder with the same amount of wealth for his use as before. This will be equivalent to withdrawing metallic money and using paper alone. This Advantages-economy of metal. will save a great deal of gold which is now wasted in being used unproductively in currency, in a work which can be as well done by paper. This gold can be kept in a

central reserve in the form of gold bullion, and be used only for international dealings. The gold being in the form of bullion can not be used as coins for internal circulation. When a country having such paper money purchases goods from another country, then it cannot pay for these goods in paper money, because the agreement to use paper money has been made internally in the country and not between the different countries. so the foreign countries will require to be paid in the international metal gold. When a merchant has to make such a payment to some foreign country he can go to the central authority keeping the reserve, present his notes and order gold to be paid to his creditor in the other country, or may cash his notes for gold bullion.

Strength of credit. It will have the effect of strengthening the country's credit, for when the foreign dealers realise that a

huge gold reserve is always kept for paying their dues they will be very free in their dealings and the trade of the country will develop without the wastage of actual gold in the currency. Even if the paper money in the country be inflated the foreign merchants will be assured of their payments in gold from the central gold reserve.

This system, as above sketched, is different from the Indian system in one material particular. In this system the standard of value and measure of account in the terms of which the notes will

be expressed is some unit of gold, and this gold will always be available for transactions with other countries using gold, so there will be no question of maintaining an exchange ratio between the currencies of the two countries. That ratio will be as between the units of gold used as the standards of

value in the countries concerned. In ordinary conditions the gold in a country's currency may decrease and the foreign merchants may become afraid whether their payments in gold will be properly made to them and this apprehension may restrict the trade relations. but in the case of this reserve this apprehension also will be allayed, so the exchange ratio between the two standards will be stable. But in India the case is different. Here the standard of value is a silver rupee, and the reserves are kept to exchange this rupee into gold for the purpose of exchange in foreign transactions. But the foreign transactions being in terms of gold an exchange ratio on the basis of the silver in the rupee will be necessary to calculate the amount of gold to be paid in exchange for the rupee. This rate may rise or fall with a change in the silver value of the rupee producing a disturbing effect on trade. If instead of the rupee there were a note in terms of sovereigns, then the calculation would have been in terms of gold and no exchange ratio with silver would have been necessary, and the Indian system would not have been disturbed by the changes in the silver market. Now it is proposed to issue gold for internal use also for being used as a store of value but not for use as currency, still so long as the silver rupee remains a rate of exchange will always have to be worked out and the situation will not be different. We see, therefore, that the Indian system differs from the Ricardian system in one very material particular which makes it quite different in effect.

Theoretically the system is not quite free from objections. It means that the people entrust their store of value to the authority keeping the reserve, themselves being content with a

Defects of the systems, an imposition likely to disturb the public mind.

record of that fact, a kind of receipt issued by a bank. In the case of a bank they have the satisfaction of knowing that they can get that wealth from the bank whenever they like, but in this case they must be overwhelmed with the probability of never seeing their gold value again unless they want to part with it and send it to another country. The credit of the reserve authority may be great, it may be the government itself or may be backed with government support, but that will be little consolation for the impossibility of getting gold. People may agree to this as a temporary measure in the interests of national credit, for the purpose of helping the nation's finances in times of need, as they so often put up with a large issue of paper money, but they will do so always hoping for better times, and if this hope be removed if there be a declaration of a permanent condition like this the people's minds cannot help being disturbed. When a man deposits in a bank and accepts a mere receipt, he does so because of his faith in the bank's credit springing from within, and not because the bank imposes it upon him. If such an imposition were attempted the effects would be quite different and the bank will go down. It appears, therefore, that there must be some visible assurance to the public that the money which it values has really got value and so may be exchanged with their valuable commodities. And in currency matters popular feeling is as important as economic considerations. The slightest whisper of distrust may cause a crisis in the modern delicate structure of credit.

Moreover it places a little too much in the hands of the note issuing authorities. Even now when there are many restrictions on the issue of paper notes over-issues.

of paper money with their consequent harmful effects are not unknown, but when no other kind of money is to be issued at all, the occasions and temptations of issuing paper notes in excessive amounts will be many more and this will not be quite free from danger. If the reserve of gold is kept to the full amount of the note issue, the profits of a paper currency will be lost then and this gold will be idle. It will be used as unprofitably as before. Further, this condition of full reserve will make it difficult to increase the internal currency in times of stringency. The condition is likely to be broken, and then the tendency to over issue of notes also may appear.

Then this system is not likely to be as automatic. Not automatic. as the open mint system is for the internal contraction of currency. In the open mint and standard gold currency system if the gold is in excess it will be melted at once by those who hold that gold. But here if the paper money be in excess it cannot be driven out, but will remain in the market and inflate the prices. Even convertible paper notes are better, because if they are not wanted they can be cashed for gold at the treasuries, but this paper money will be like an inconvertible paper money overissued and a permanent problem to deal with. Special steps will have to be taken every time for its contraction, and the whole system will require a good deal of artificial regulation without the simple beauty of the standard gold currency and open mint system. A continuous abnormal state of affairs will become the normal experience.

A new kind of standard is proposed by the managed currency school of thought
 Tabular standard. which may be called the tabular standard. The idea is to make a list of important commodities of general demand

with their prices, and to issue paper notes for internal currency. Then a watch should be kept upon the prices, if they rise some currency be withdrawn till they come to the old figure, and if they fall then new currency be issued. Gold should be reserved for international transactions. In this way internal prices will be kept stable. In reality it is merely a manipulation of currency to keep prices stable and not a new standard. It can be done with a gold currency also without undertaking the risks of an inconvertible paper currency for internal purposes. Moreover it does not give sufficient weight to the affect of international prices upon such commodities as wheat and cotton which have a world market. It would work well if all countries agreed to adopt it, for no country can now be quite isolated from the others.

Now-a-days paper currency is issued as a supplement to the metallic currency. It is Paper currency. composed of various denominations of paper notes. A paper currency note is a certificate that the note represents so much money, implying that the holder is entitled to the same rights as if he held that amount of metallic money. These notes are unlimited legal tender and may be paid in any amount. Currency notes are representatives of the real metallic money and are taken as such. They are expressed as different multiples of the standard unit of money in use.

They may be convertible or redeemable, and inconvertible or irredeemable. In the former case the authority issuing them undertakes to cash them with gold or silver whenever the holder of the note desires to cash it. The holder has confidence in this promise and the note is used as money. The authority issuing it is either the government or a central bank author-

ised to issue them under certain restrictions against overissue. A limit of amount is fixed beyond which the bank cannot issue notes. If it does it must either take the government's permission first, or as this may be very inconvenient in times of great need for funds, it may issue notes but must pay a percentage as a tax to the government so that there may be a check over it. It will issue notes and pay the tax only if there is really a very great need for them. Another safeguard against overissuing notes is not to issue notes of small denominations like one rupee notes, so that some metallic money may always remain in use. This will set a limit to the transactions in which notes can be used, and so beyond this limit the notes will not be wanted and will not be issued. If there be no one rupee and two and a half rupee notes then for all transactions up to five rupees metallic rupees will be required, but if the two smaller notes also be in use then all transactions may be effected with notes and a larger number of notes will be issued.

It may be asked what is meant by overissue and why should one be afraid of overissue ?

Danger of over-issue or inflation.	When a government is issuing currency notes, it makes its payments in notes and so does not require gold or silver to pay off its liabilities. All that it has to do is to print notes and pay them to those who have to be paid by the government. This is a very easy method and the government may go on doing this for a very long time. For sometime the people may agree and may rely upon the credit of the government and may believe that the government will redeem those notes when required to do so. But if this continues the people may begin to feel nervous. The government may refuse to cash them and then they will have nothing
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in their hands but notes, there will be no commodity value in their possession in exchange for their goods. They will become anxious for gold and will like to take gold in return for their goods rather than notes. If anybody wants to cash a note from any merchant he will demand a premium or a payment for taking a note and giving gold, because the law may force him to take notes in payment of his dues, but cannot force him to cash notes, which is not his responsibility.

When the note thus becomes less valuable than the value shown upon its face, it is said to be depreciated. Even metallic currency becomes depreciated and less valuable if it is in excess of the needs. If the overissue or inflation of paper money goes on, the conditions may become worse. They may refuse to sell goods for

Appearance of
two prices, the
danger point.

notes. If they sell they will be compelled to take notes. So they may not sell at all unless the buyer agrees to pay an extra amount if he pays in notes to compensate them for the premium which they will have to pay in cashing notes. Thus two prices will appear, one in gold and one in notes. This will be the danger point. Firstly as there will be no gold in circulation

Economic
effects.

the prices will be in terms of paper notes, and the prices will be more than their real figure by the amount of premium on gold in the market. So to this extent the prices will be inflated or artificially raised. If the rise had been due to a decrease in the supply of goods or to the increase of the demand for them then it would have been adjusted in the long run and an equilibrium would have been established in accordance with the law of demand and supply. But this is due to artificial conditions introducing an uncertainty in trade and disturbing the normal working

of economic activities. This harms trade and industry. Thus the rise in the prices will prevent foreign merchants from buying in that country. They will buy in some cheaper market. The produce of the country will not be sold, the producers will have it on their hands and the consequences of an

overproduction will follow, if the disturbance is great and prolonged an economic crisis may result. Secondly

this appearance of the two prices means that the public

is losing confidence in the government, Political danger. and that the irritation against its policy is increasing. This may have

undesirable political consequences, and the government, instead of having derived any advantage may suffer a disaster. In India Muhammed Tughlak is said to have tried to issue token coins of leather when his finances were bad, and he is said to have reaped a bad harvest therefrom.

The danger of overissue is very great in the case of inconvertible paper currency, or Inconvertible paper currency. notes which the government does not undertake to cash in gold or silver.

A small amount of these may be forced in circulation, and the people may be forced to accept them by the authority of the government. But this cannot be done indefinitely, and soon the evil effects are likely to appear. The temptation to overissue in this case is greater than in the case of the convertible paper currency. In the latter case a reserve of metallic money has to be kept ready to meet any demand for cashing notes, and this acts as a check on an undue increase of notes. But in the former case this check is not present, no reserve is required, merely the notes are to be printed, and so the temptation to overissue is very great. It is not issued by

a bank as a bank is jealous of its credit ; it is generally issued by a government which can enforce its use also. In practice, however, paper currency is nearly always convertible currency.

It may be asked, then, why is this danger of over-issue incurred ? What is the advantage of issuing paper money ? The advantage consists in this fact that even in the case of the convertible paper currency the whole amount of metallic money represented by the notes issued need not be kept ready in the reserve. It is found that all persons who hold notes do not require to cash them at once, and generally 33 to 40 %, and even lower, reserve for notes issued is sufficient to meet the ordinary needs of cashing. This makes 60 % of the metallic money available for other purposes. If the notes had not been issued this would have been used in their place in making the government's payments, but now it may be used in other productive purposes as irrigation, railroads, or if the issuing authority is a bank then in being lent on interest to approved persons to help in trade and industry. Further, this device helps to put the government in funds when it is lacking in them. It is like taking a loan from the public and giving signed receipts for the loan to be repaid whenever wanted by the holder or the government's creditor. In the meantime the loan may be used in some useful work.

One gives credit to another when one believes what the other professes, or in Economics, when one agrees to the postponement of a certain payment from another believing in that another's capacity to pay at a future time. Credit is faith, and when one has faith in another person he believes his words and representations. These representations may be in the form of a written instrument. Such is the case

Credit
instruments—
notes.

with bank notes, in which the bank promises to pay the bearer the sum stated in the note whenever it is presented for payment. Such notes of any and every bank will not be accepted generally by the public, but only those of a well known bank in which everybody has confidence will be accepted and then they may circulate like a currency note. Formerly this right used to be enjoyed by all banks, but it was liable to abuse by the unscrupulous banks. Now only a bank authorised by the government to issue notes can issue them. Other instruments based upon the credit given to another person are bills of exchange, "hundis", and cheques. In all these cases the person who gives credit or the creditor has some money due to him from his debtor, and so writes an

Drawer,
drawee and
payee

order to his debtor to pay that money or part of that money to the person named in the order, or to the order of the person so named or to the bearer. The person who makes the order is the drawer and the one on whom it is made is called the drawee, and the person in whose favour it is drawn is called the payee. When such an instrument is drawn on a

Cheques—
'Order' or
'bearer'

bank it is called a cheque. A cheque payable to a certain person or bearer will be paid to any one who presents it. But if it is payable to a certain person or his order then either the payee can himself get the payment, or if he does not present the cheque himself he may write on the back of the cheque an order to pay it to some other person and sign his name. This is called an endorsement, and the person so making the endorsement is called the endorser and the person in whose favour it is made is the endorsee. If the endorsee also does not present it, he may endorse it in favour of an-

other and so on till it reaches the bank. Generally only one endorsement is made, and never more than a few. If the bank refuses to cash the order it is said to dishonour the order, and the endorsee can recover his money from any of the endorsers or from the drawer on whose credit he took the cheque, for all persons believed that the drawer had funds at the

bank, which proved to be false. So ultimately the drawer is responsible. A bearer cheque may circulate from hand to hand without endorsement till it is presented for payment. The use of the cheque has helped money transactions very much and has increased the efficiency of money. The money which would have remained in the safe of the drawer is now used by the bank to help industry, while the drawer can use his money whenever he likes by drawing upon the bank. If the payee also has an account in the bank then it may simply be paid into his account and an entry to his credit will be made without any transfer of actual money. In any case so long as the cheque is being endorsed it is doing the work of money and is enabling the money which it represents to do some other profitable work in the meantime. Thus the same amount of money is working several transactions simultaneously and its efficiency is said to have increased.

Another usual form of a credit instrument is a promissory note drawn by a person promising to pay another a certain sum at a future date. But such a note does not circulate as much from hand to hand as a cheque does, it may be sold as a claim. It does extend credit and enables a transaction to be completed without passing money for the time being.

Another form of a credit instrument is a "hundi" usually used in India. It is the indigenous bill of exchange. A in Dehra Dun

has got funds with Bin Calcuta, and draws an order upon B to pay a certain amount from those funds to C or his order. may be payable at sight or after a certain period of time. C takes the hundi and pays A its amount less the interest for the period of time. Now C may sell it or endorse it to D who will pay C the amount less the interest for the remaining period of time, and so like a cheque this also may be circulated in a few hands till it is presented to the drawee, who either accepts it or dishonours it. When such a hundi is drawn on a foreign debtor in the course of

international transactions it is called
 Bills of exchange, a bill of exchange, which also is an order by the creditor to his debtor to pay the payee or to his order a stated sum either at sight, i.e. when it is presented to him, or after a

certain period of credit. Then the
 Days of Grace. creditor endorses it in the favour of another and so on till it is presented to the drawee. Three days of grace are generally allowed for payment after the bill or hundi has fallen due.

In all these cases the instruments are taken on the credit of the drawer and they enable several transactions to be performed without passing any money. Specially the

bills of exchange are very useful in international transactions. These credit instruments are not strictly currency.
 Characteristics. Not strictly currency.

because they do not circulate generally as money. Only those who have faith in the parties accept them, and they circulate for a limited time in a limited circle, and do not act as the common medium of exchange, the standard or the store of value. But although they are not true money, still they do partake of that character to a limited extent, even though only so far as they circulate.

But operate
as if increasing
currency.

Sensitiveness of
money market

Moreover they do release immense quantities of money for other works and so operate as if a large quantity of additional money were placed into circulation. With their help an immense structure of credit has been built on a slender basis of metallic money. While it enables much more work to be done than could have been possible otherwise it has also made the money market very sensitive and delicate. The slightest whisper against the credit of some important party may cause a crash by bringing all the creditors to his door when the metallic reserve is insufficient to meet such a sudden demand.

MANIPULATION OF CURRENCY.

An increase or decrease of money in circulation has a great influence upon the prices and so it is important to enquire how a currency is handled and what are the effects of the various ways of doing it.

Artificial and
automatic
system.

A currency system may be either altogether artificial or managed like an exchange standard system, or it may be altogether automatic when there is only metallic money of full value in circulation with the open mint policy. Generally a system consists of both parts, the automatic and the artificial, the latter consisting in the paper currency. The artificial system requires artificial control, while the automatic system works through free coinage and melting by the general public whenever either process is required. Even in the case of the latter if the currency decreases

very much artificial steps, like raising the interest rate, are taken to set such forces in motion as may increase the currency. The question of this manipulation is important as it can regulate the trade and industry of a country by creating favourable or unfavourable momentary conditions. This manipulation may be by managing the exchange rate, inflation or deflation of currency, or raising or lowering the rate of interest.

Where there is a silver currency controlled by the government, as it is in India, an exchange rate has to be maintained with gold so as to facilitate international trade. For this purpose the government fixes a rate which it considers suitable to the trade conditions and tries to maintain it by offering to exchange gold and silver at that rate. If the market rate be slightly different the appearance in the field of the government to exchange at the old rate will bring the market rate to the old figure. But this cannot be done without a great loss if the difference between the market rate and the legal rate is great, and indeed in some cases it may become impossible to do so. The history of Indian currency affords many examples of this phenomenon. If there is any mistake in fixing the rate the results may be disastrous as they were when the rupee was fixed at 2s. to a rupee, which rate has at last been abandoned. On the other hand a properly thought out rate may do good to the country. Thus if a low rate of exchange is fixed the exports of the country are encouraged. For example if one rupee comes down from 1s 6d to 1s 4d then for the merchants in England 1s 4d will purchase one rupee: as the prices in India are in rupees, the prices in India will look cheaper to the English merchants, because now 1s 4d will purchase one rupee worth of goods while formerly 1s 6d were required to purchase the same goods. So they will

Importance of
manipulation

Managing
the exchange
rate.

purchase more in India. The increase of Indian exports will increase the purchasing power of India, and will induce the Indians to produce more and so develop economic activities. Because they earn more they will consume more and will ultimately purchase large quantities of goods from foreign countries also. There will be a general increase of prosperity. If on the other hand the rupee rises from 16*d* to 18*d* the contrary effects will follow. Goods in England will look cheaper, for now one rupee will purchase 18*d* worth of goods instead of 16*d* worth, so Indian merchants in India will purchase goods from England. At the same time now that one rupee worth of goods in India will cost 18*d* instead of 16*d* the English merchants will not purchase from India. The imports into India will increase and the exports will decrease. The purchasing power will decrease while the expenditure will increase. Then the imported articles will injure the home industries by their competition : and so the change in the rate may do harm as well as good. Ultimately exports also will increase but on account of the force of habit, or the capturing and losing of markets, the interval of the disturbance may often do a lasting injury to a country.

When paper currency is over-issued it inflates prices, stops exports and causes a kind of overproduction and may even lead to an economic crisis. The effects of an economic crisis are widespread. A general set back to trade and industry is caused, the rise and investment of capital is checked as there is a lack of confidence. But this is the case when the inflation is great. A moderate inflation may have some good results. A slight rise of prices increases production as it gives a greater margin of profits, and generally there is a brisk activity and prosperity provided the inflation or

Inflation—its
evil consequence

Moderate inflation good if accompanied by a genuine demand.

the increase of currency is accompanied by a genuine demand for the commodities. If there is no such increase in the demand then after increased production will come a crash, when those commodities will not be saleable and overproduction will be the result.

In such cases a deflation of currency is necessary.

Deflation, how effected.

It is effected by withdrawing the paper currency or other token currency from the circulation by cashing notes or by the government borrowing money. Those who subscribe to the loan will pay the currency to the government. Where there is a paper currency, it can be easily contracted by cashing the notes and cancelling them. This will restore confidence. But if the metallic currency also is in excess then cashing notes will not help, for then notes will be replaced by metallic money. Then loans may be issued, and these loans may be used in productive purposes such as building railways and canals. The money so paid out will not create an excess of money, because it is also creating extra work or demand for money by opening the new lines of employment. The withdrawal of money will lower prices and exports will be encouraged. With the restoration of confidence economic activity will increase as also the purchasing power of the people.

Too great deflation bad.

But at the same time it should be remembered that too great a deflation is harmful. It lowers the prices much and harms the producers, their purchasing power is decreased, and there is not much inducement to produce more at those low prices. Money becomes scarce and industrial development is checked as the capital becomes costly and the rate of interest rises. This state of affairs is improved when there are greater

exports induced by the lower prices, and then the demand for them increases their prices, and money flows in from outside. Therefore, deflation is good only to the extent that it induces exports. Further than that it injures production. Excessive deflation may cause a crisis by limiting credit and thereby making it difficult for persons to meet their commitments. It increases the real burden of taxation, makes adjustment of wages necessary leading to strikes and economic disturbance.

When the amount of money decreases very much in the country, the rate of interest rises, because money is difficult to get. This rise of interest attracts money from outside. Those who have to pay foreign creditors postpone the payment so as to earn the rate of prevailing interest or because they can not get funds at a cheap rate to make their payments. The exporters export goods in large quantities so that money may be received in payment and earn that high rate. Investors from abroad invest money in that country of high interest. In all these ways a high rate of interest prevents money from going outside the country and attracts more from abroad, and thus the harmful effects of too great a deflation or stringency of the money market are remedied. Where a central bank looks after the monetary control of a country, it carefully watches the movements of money, and when it finds the situation becoming serious it raises the rate of interest to conserve the gold supply of the country. The high rate prevents people from coming to it for loans and its reserve is saved from being depleted; besides money from abroad is attracted.

A fall in the rate of interest has the opposite effects. It induces capital to go outside to places where higher rate of interest is paid; money is easy in the market and so

Raising of
interest.

Fall of interest.

those who have to pay foreign creditors pay off their debts. As there is a large amount of money seeking to be spent, the prices rise and so exports are discouraged. At the same time, however, because money is easily available at a low interest, there is a greater activity in industry. New industries are established and new sources of work and profit are developed. If this is done in response to a genuine demand then the industrial progress of the country is helped immensely. The actions and inter-actions of these forces are so intricate that the financier has to keep a careful eye on every aspect to decide upon the proper policy.

CHAPTER XIX.

NATIONAL EXCHANGE.

By national exchange is meant that body of transactions which take place between the members of a nation internally as opposed to the transactions between such members and those of a foreign nation. National exchange is internal, while the international one is external. It includes all exchange transactions that take place within certain territorial limits. There are certain characteristics which distinguish this class of exchange from the international one. In national exchange the interests of the whole nation are considered as one, and so there is no question of a protected or free exchange; there is no controversy whether protection should be adopted for infant industries, or free trade should be allowed. There are no barriers of customs and the whole market is a free market. If different provinces of a country having a federal constitution do possess the right of raising customs barriers on their boundaries then the exchange becomes international exchange as between those provinces. The characteristic feature of national exchange is a unity of interest and a free internal market. For the same reason one money circulates throughout the length and breadth of a country and there is no need of maintaining an exchange ratio, as is the case between two countries. National exchange is free both from the obstructions of customs, and from the evils of a changing exchange rate. Octroi duties are sometimes levied at various places within the territorial limits

of the nation, but they do not act as protective duties. They are imposed for the purpose of getting funds for the municipality, and so they are kept at such a figure at which they do not raise the price so much as to decrease the consumption.

National or internal exchange is more important than the international exchange both in theory and in bulk. In theory the international exchange is the chief source of getting things suitable for the satisfaction of human wants: the foreign or international exchange is only supplementary to the internal exchange so as to supply those commodities which a nation does not produce itself, but the main-stay of a nation must be its own production and exchange. If it produces much, its exchange also will be great and the nation will be prosperous. If it does not perform many exchange acts it is because it has not produced much, and so its prosperity cannot be great. A great internal activity in exchange indicates a great economic activity which is necessary for national progress. A nation which depends mostly on foreign imports is likely to become bankrupt very soon, unless it increases its productive activity so as to produce enough to pay for the goods of the foreign countries. So even foreign exchange depends to a great extent on the internal exchange. Internal or national exchange is not important only in theory but also in practice when we look at the immense bulk of the internal transactions. In the case of foreign goods, the goods received or imported as well as goods exported are entered at the ports, and thus accurate statistics of foreign trade can be easily kept, but in internal exchange this registration is not necessary and correct information is not available. A vast bulk of simple exchange transactions going on all over the country, in its small

More important
than international
exchange in theory.

As well as in bulk.

villages and elsewhere, cannot possibly be recorded. But whatever is recorded shows that the amount of the transactions effected in the country internally are far greater than the transactions done with foreign countries. Therefore in considering the effects of any measure affecting commerce and industry it is very important to consider its effect upon internal prices and exchange, for these are the things that matter. The prices of exports and imports, the exchange ratio are all important not so much because they bring treasure to the country, or take away from it, or because the cost of imports increases or decreases, but much more because all these operations have an affect upon internal prices and trade. Internal trade must be safeguarded; it is the life-blood of the nation. While it is true that the main consideration is that of internal exchange we should not forget that economic life is so organised that nothing which affects foreign exchange will leave internal exchange untouched. There are such inter-connections and intricate relations that no problem can be studied in perfect isolation. An example of this we saw in the case of demand and supply, another in the economic crisis, and a third we shall study in the foreign exchange.

Internal trade depends to a large extent upon the population of the country. Exchange is the second step necessary in the process of the satisfaction of human wants.

The greater these wants are, the greater will be the production and the resultant exchange. These wants will evidently be larger for a larger population. Secondly where people live close together there are great chances of their effecting exchange with each other, but if they are dispersed far and wide they are likely to be more self-sufficient. Close contact produces mutual dependence, which is the essence of the phenomena of exchange. But only

the size or grouping of population is not important. The character of the population also has a great affect. A sturdy and hardy population is likely to be more active and productive than a lazy, weak, and indolent people. Where production is great, exchange will have to be great. If exchange does not keep pace with production, as is the case when the demand for things is small and prices are low, then production will decline. It will maintain itself only when it is absorbed in exchange. If it is not absorbed at home the surplus will be exported and exchanged with the produce of foreign countries. So as a rule a healthy and industrious population will produce more and exchange more.

The extent and character of a country are very important in determining the development of internal exchange. In internal exchange there are no customs barriers, the movements of goods are free, and so the larger the area of this free movement the greater will be the total amount of transactions effected within its limits "other things being equal." The phrase "other things being equal" is very convenient in scientific discussion, because it at once makes us aware that we are considering only one class of forces and that the actual facts are affected by other forces also, which may vary in their operation. Thus even though the country is large yet if it is sparsely populated the trade will not be very great. Moreover if the country is mountainous, sandy or covered with forests then also the internal trade is not likely to be very extensive, because the people cannot produce much, and secondly because the communications are not likely to be good. They cannot raise good crops and weave cloth. For their primary necessities also they may have to depend upon imports, at least so long as the coun-

Extent and
character of the
country.

try is not developed, or they will lead a life of poverty. Such is the case where the natural resources of a country are not great. The people of such a country can neither produce very much themselves, nor can they import from outside, for they have little to give in return for those imports. Such a people lead a life of economic stagnation, divorced from all industrial progress and also from the advance in art, industry, education, learning, and the standard of life, which all go along with an increase of capital and the intensification of industrial effort. The way to improve the lot of such a people is to utilize the resources of other countries with the help of the sturdy labour available in the country. Raw materials may be imported and manufactured with cheap labour and then exported. The cheapness of labour may for sometime compensate for the greater cost of raw materials. When industries begin to be established the resulting prosperity will increase the purchasing power of the people, and will in course of time make the same standards of labour and life possible as elsewhere.

In a large country, a healthy and dense population, great natural resources may all be there, but if the communications are not well developed, the internal trade, as also the foreign trade, will not increase. If goods are the blood the communications are the blood vessels. The development of communications is of the utmost importance for trade. Without them the different parts of the country will live like insulated groups self-sufficient and unable to do much business with each other. This is what happened in India in the middle ages. If a famine occurred in any part of the country the other parts could not help it. This is also the reason why most of the great cities

of old times were founded on the banks of the rivers which served as the easiest and the readiest means of communication. But it should be noted that mere development of communications to take goods from the interior of the country to the ports, and take the foreign goods from the ports to distribute them in the interior is not so useful to internal trade.

Industrial
development
must go on
with that of
communications.

For the internal exchange the development of production of all kinds, including the industrial, must go along with a development of communications. If this is not the case then the communications will rather drain the resources of the country in foreign trade. This condition, however, cannot remain for long, because the contact with outside world will make the people realise the harm of a divorce between communications and production sooner or later, and the industrial development also is bound to begin at last.

Purchasing
power.

This discussion must have made this quite clear that the extent of internal trade depends upon the prosperity and the size of the population. These again vary with the extent and character of the country, the natural resources, and the communications. The secret of increased prosperity and trade is the purchasing power of the people. With the increase in this power the production and exchange will both increase. If the people have enough to make purchases with, they will want more goods and will stimulate production. If their purchasing power is not great there will be little incentive to production. This purchasing power is not increased by a mere exchange of what they produce with the goods of another country, for such exchange may in effect give them a small profit. The purchasing power of the people is increased by the provision of

Secured by
variety of
occupations.

many highly profitable occupations. This is done by developing the greatest variety of work possible. This variety produces a demand for various kinds of

labour and the productive effort of the community has an occasion to choose the most profitable occupation. Therefore, a widespread development of all

Specialty those
following in-
creasing returns.

kinds of industries, specially those which follow the law of increasing returns, leads to a great industrial and commercial development, and provides sufficient and remunerative work to labour. If the

purchasing power of the masses is great it is immaterial, if the prices of commodities are high. The standard of living of the people will rise in spite of high prices. The only danger in this is that a too great an attention to industrial development may not make us forget agriculture, which is after all the mainstay of life. This has been so in England to an extent. But there need be no danger of this in India for the extent of the country is so large, the traditional village life is so popular, that agriculture can not be neglected. What is necessary is the provision of some supplementary cottage industry to the great mass of the people to utilize their spare time, for agriculture does not give constant occupation. It concentrates work in the seasons and then leaves the people free and idle for a long time after. Along with this industries of various kinds should be established at various places. The resources of India are so great and of such a variety that they afford a great scope for this development.

The development of work and living is very much affected by the spread of education. Education enables the people to benefit from the experiences of other nations, to come into contact with

Spread of
education.

the world outside and to develop the resources of the country. Even the literary education is helpful as it enables us at least to appreciate the condition of life existing at different places and to realise the necessity of producing better conditions in our own. The realisation is bound to result in a greater productive effort in the long run. But what is more directly wanted is the increase of the technical education required in the various departments of industry. One mistake which is commonly committed is to be avoided, and that is the provision of education without developing the work that may absorb the products of such education. If there is little work, such education will not have so much encouragement, nor will there be any practical result. The advance of industrial production must go along with that of the technical education. Just as if we produce goods without there being a demand for them, there is likely to be an overproduction and a crisis, so the mere increase of technical education without increasing the demand for it would not only be a waste of energy, but will also be harmful. It will make the newly educated students having little practical experience and pining for work try to float new and unstable companies, which are likely to go down ultimately leaving behind much economic distress and giving a shock to the whole fabric. Technical education should include a course of practical training and then there should be a demand for the students so trained.

Even literary
education is
useful.

But technical
education is
directly useful.

Work to be de-
veloped with educa-
tion.

CHAPTER XX.

INTERNATIONAL EXCHANGE.

In old days international trade was commended on the bullionist and mercantile theories. It was thought that exporting goods was beneficial so as to get bullion or gold and silver, which were considered to be wealth, and so while the selling of goods was encouraged purchasing or the spending of money was discouraged. The mercantile theory recognised the necessity of imports but aimed at creating a favourable balance of trade by giving bounties and imposing duties. But now protection is advocated to foster industries and not to get specie. The development of the theory of exchange has made it plain that an exchange of imports and exports is advantageous not because it brings in money, but because it increases the total of the utilities of both the parties to the exchange.

This is true as much in the case of nations as in that of individuals. When two countries exchange their products they sell what they do not need in return for what they need much more, and so there is a net addition to the store of the utilities of both. This additional utility in the commodity is brought about by its change of hands and situation. Just as the possibility of exchange enables a person to devote his energies to the production of that commodity which he can produce most easily, and so can produce best, similarly in the case of international exchange each country is able to use its productive

Bullion and
mercantile
theories.

Addition to
utilities.

Specialisation—
Theory of compa-
rative cost or re-
lative advantage.

capacity in producing commodities which it is most fitted to produce. Each will specialise in one kind of production, and as the producers of one country acquire special skill and practice in producing that kind of goods they will produce larger quantities in a given time and with a given expenditure of labour and capital than other producers in other countries will be able to do. As they will produce more goods they will be able to get more in exchange for them. In each country the productive power is employed in producing that which it can produce at a comparatively low cost; there may be other things which it can produce at a profit but not at so much profit or even if it can produce it at a higher profit, still it can get the same thing even cheaper than its own cost would be from another country. Therefore, it will be relatively advantageous if it employs itself in producing that which it can not get from the other nations more cheaply. This will be true of all the countries participating in the exchange. As a result there will be increased production as a whole, and all the countries will be better off as a result of this specialisation than they would have been otherwise. This increase in prosperity will create new wants, new ways of spending money, and so new industries, and there will be a general progress of society. There will be a great industrial advance and activity and the people will get plenty of work. They will earn more and live better. The standard of life will rise and the labour classes also will be better off. They will not only get greater income but also cheaper goods, for specialisation and industrial progress will lower prices. It is the same thing as in the case of the individual. The individual is enabled to work better, earn more, and live well, by the possibility of exchanging his,

Increased
production.

Industrial
development.

Higher living.

goods with those of others than would have been the case if he had been isolated. Similarly a nation increases its income and is able to satisfy its wants which would not have been so easy if the produce of other nations had not been within her reach. With economic intercourse there will also be interchange of ideas and culture tending to produce a world harmony and enabling each country to profit by the progress of another.

Interchange of ideas and culture.

International trade has another effect of great importance. The industrial relations of the world are so closely organised that each nation becomes interested in the prosperity of the others. Capitalists of one country invest their money in other lands; producers of one sell their goods to other countries. If the relations between two countries become hostile then the capital invested by one country in the other will be endangered, and the demand of the nationals of the one for the goods of the other will be destroyed, putting the producers of the other country out of work and throwing the labourers out of employment. The industrial classes of each country will, therefore, be against the declaration of a war unless there be some extremely critical situation. Thus industrial solidarity induced by the international exchange will tend to maintain political peace as well.

Another important advantage is that international trade tends to stabilise prices. The sphere of supply and demand is vastly increased and the prices become world prices which are not so easily varied by local causes.

Stability of prices.

But while the development of international trade between two countries, say A and B, tends to develop industrial solidarity and maintain political peace between

Disadvantages—
Industrial and
political rivalry.

A and B, the industrial rivalry between A and C to capture the markets of B will lead also to political rivalry between A and C, and may ultimately lead to war. In the modern politics it is not so very important to conquer countries as it is to conquer markets. Formerly great revenue was derived by subjugating people and taxing them, this involved war with all its untold horror and destruction. Now this is substituted by a system of peaceful penetration. A nation tries to sell its manufactured goods in the markets of another, makes commercial treaties with that other for special advantages to its goods in comparison with those of others. This increases the production of the exporting country. Its merchants and producers are able to grow wealthy with increased profits. Its labour lives a healthy and busy life. There is a general increase of wealth. And on the basis of this increase of wealth the government of the country imposes new taxes and increases the old ones, and thereby obtains a larger revenue than before. Thus the same result as that of territorial conquest follows this peaceful penetration, but without the trouble and anxiety involved in the governance of another country. Now additional lands are wanted not for revenue but for the colonisation of the surplus population of a country; or a country may be annexed so that its commercial and industrial exploitation may be secured. These facts increase the industrial rivalry between the advanced industrial countries of the world and lead to political friction. Such causes were at the root of the last great world war, and may still produce another.

In case of war the industrial dependence on another country caused by international trade is actually felt. Then the difference between the national and international exchange is realised. In the case of the in-

Industrial dependence.

dividuals they are the members of the same economic system or of one national exchange. They will follow different professions, and all will satisfy each other's wants. In international exchange nations are substituted for individuals, and nation-individuals are only a few. They can be counted on the fingers. If any of them becomes isolated the position may become serious. England had such an unpleasant experience in the last war, and that experience has given an impetus to agriculture, which had come to be neglected there.

Where mineral industry falls to the lot of a country, it may have to exhaust its natural resources to supply others instead of conserving them for the future. Or a specialisation due to international trade may produce such movements of labour as to create the social evils peculiar to the modern industrial organisation, *e. g.*, crowding of labour and class conflicts; for example in India the cottage production has had to be changed to factory production even though the latter is not quite germane to the culture of this ancient land.

Another harm that may be done by this specialisation is that while it may condemn some countries to toilsome and rough occupations, like mining, agriculture, to others it may allot refined ones like manufactures, watch making and such others. And it may be so not because the country is not fit or has no resources for refined industries but merely because of the accident of foreign competition.

Specialisation does increase production and national income but to certain extent it is done at the cost of home labour and capital. Labour and capital is discharged from occupations in which the com-

Exhaustion of
resources.

Social evils.

Toilsome occupa-
tions.

Loss to home
labour and
capital.

petition of foreign goods is keen, and goes where it is not present. It is not always necessary that the second profession be really more profitable than the previous one.

Less profitable
occupations,

It may be less so, but it is still maintained not because there is a greater profit but because there is no foreign competition in it. The other line of production may have to be given up not because it is less profitable than the one taken up but because the foreign producer works it even more economically and so places his goods at a cheaper rate in the market than the home producer. Such a thing happens when foreign competition injures the manufacturing industries of a country, and throws the labour back on agriculture, in which owing to the law of diminishing returns such high profits cannot be realised, and so labour's share in the national income is not great. Thus there may be specialisation but it may be in a less profitable work. Even this specialisation may be good from the view-point of the whole world, for after all some country would have had to do the work in the long run, but there is no doubt that the particular nation is sacrificed for the benefit of others. The principle "all for society" may be workable in a national exchange where the members have common interests ideals and aims. But in the international sphere there may be wide-differences of religion, language, social customs, laws, culture and outlook, and indeed there are such differences. This difference makes it very inconvenient for one nation to be sacrificed to the cry of "specialisation" for the real benefit of others. Moreover the result of this specialisation is undoubtedly a reduction of the variety of occupations, and this in itself decreases labour's earnings. In the case of specialisation in a national exchange although special

groups of capital and labour are occupied in different productive processes but there is no great restriction or hindrance in the way of any individual who wants to change his work. His change will not affect the specialisation, the groups will go on doing their work, and yet there will be the possibility of this change open for each labourer. A variety of professions will be open to him and he may take to one which he finds most congenial and profitable. In the case of the international exchange the specialisation is by national groups, and these groups are more isolated than those of the national or internal exchange. They may be at great distances, there may be various taxes, and other hindrances to migration, there may be differences of race, culture and habits. So there is not the same free movement of labour or capital and it is not quite easy for a labourer or capitalist in one group to change to another group. There is no variety of occupations for him, and he must labour where he is, even though he be fitted for anything else in which he could have earned larger wages than he is doing. This tendency indicates a distinct loss to the labour of the home country. The reason is quite clear. Even when trade is quite free the political rules about naturalisation and immigration make nations isolated groups, and the sphere of movement between them is not so free as it is in case of individuals forming members of one national group. Therefore the laws applicable to the national exchange internally cannot apply to the international exchange entirely. So while specialisation may be good in internal exchange, it may be quite the contrary in the international sphere.

The reason—no free movement in international sphere.

The exchange between two countries may consist of services, goods and monetary transactions.

When one country employs in its work the nationals of another it is taking from that other country certain services and must pay for them. Then there may be the actual goods purchased from either by the other. When one country sells goods to another they are called exports from the selling country and imports into the purchasing country. A country may take a loan from another, or may have to pay interest to another for a loan taken already. It is the same whether the loan is taken by the government or by a private merchant, or even if only some capitalist is sending his capital to be invested in another country or is receiving interest on his capital already invested there. In the account between two countries all these items are important. A country pays to another the price of its imports including precious metals or treasure, the remuneration for the services it has received from the individuals or institutions of the other country as shipping charges, brokerage to underwriters: any interest it may have to pay on any money borrowed from the other country or on the capital belonging to foreigners invested in the paying country; and the part of the principal of the loan if it should be paying it back at the time. On the other hand a country receives from another the price of its exports including treasure, the payment for its services, the interest on its capital invested there, and if it be taking a loan or if the foreigners be sending their capital for investment then such is in-coming capital or loan.

When the receipts are greater than the payments the balance of indebtedness is said to be favourable to the receiving country and unfavourable to the paying country. If only the exports and imports are compared then it is termed balance of trade, but the true balance is indicated by that of indebtedness.

Balance of
indebtedness,

The use of these terms is a relic of the old idea of productivity and of wealth. The first consideration of all economic activity was the increase of wealth, and any operation which brought treasure into the country was considered to be productive and favourable, while that which took away treasure was thought to be unfavourable. Now economic theory recognises that in reality the two must balance in the long run. It being an equal exchange on both sides, nothing received can be received gratis, it must be paid for in some form or other. While this is true still the effect of such movements on the production of a country is so great for good or for worse that it can not be ignored. For example even though the treasure received has to be paid for, yet as this payment is to be in the form of export of commodities it means greater production in the country to meet this new demand, and certainly the stimulation of production in a country is beneficial to it.

Let us consider these effects in a little detail. If a country A has exported more to a country B than it has imported, then B will have to pay A for this excess in the form of gold and silver. This will cause an increase in the supply of money in A. It will result in a rise of prices, and an excess of capital seeking employment. The apparently high profits to be realised will lead to an increment in the productive activity in A, new industries will be established and new avenues of work will be opened. On the other hand in B the draining of the money supply will cause a scarcity of money and a fall in prices. The production of commodities will not appear to be so profitable, capital will be scarce, no new industries will be established, and the old ones also may find themselves in financial difficulties. This condition may not be actually reached all at once.

Effects on
prices.

but the tendency will be in this direction. However, these effects will be only short-lived, for the increase of prices in A will discourage exports from A, while the fall of prices in B will encourage imports from B into A, and so the balance will again tend to be equalised. There may be short period fluctuations but in the long run the tendency will be for the balance on both sides to be equal unless special circumstances intervene. It should be noticed, however, that even in the short period of its effects the movement of treasure may have given a new direction to the production of a country. Further unless the movement has continued for a long time to enable the new production to establish itself it may lead to a crash when the tide turns. Generally it is true that in the long run foreign trade, like internal exchange, tends to find its equilibrium.

One class of important special circumstances may consist in the kinds of goods exported or imported. If the goods exported consist of agricultural produce and minerals, then it may happen that a country, say A, may go on exporting in excess of its imports, and may go on receiving treasure in payment year after year. The increase in treasure will increase the prices but as the exports consist of goods which are either necessities of life or are raw materials for industries their demand is not so flexible as is that of the manufactured goods, and so the goods will continue to be taken even at a greater cost. Not only so, but this demand for raw materials will increase with the increase in population and the development of industries in the other countries. This increase in the demand will require a greater production, and as the agricultural and mineral production follows the law of diminishing returns the increased production will have to be at a greater cost than before.

Diminishing and
increasing
returns.

To pay this greater cost the other country, say D, will have to develop its own production, and if D is a manufacturing country this increased production will place increased economies in its power, and it will be producing the extra quantity at a smaller cost, and so it may easily continue to pay for increased costs of A's produce and even then reap a profit on account of her production being governed by the law of increasing returns. Indeed a manufacturing country is in a specially favourable position in international exchange. As it produces more, its cost is decreased, and so it can afford to sell goods at a cheaper rate than before and thus capture new markets every time. It will start new industries. Its resources may increase so greatly that it may begin to invest them in foreign countries thereby increasing the national income year by year. Exports may go on increasing and yet the surplus treasure may not be allowed to come in to disturb the market. This will give time to the new industries to be well established, and their produce also would become as necessary to the consumers as any other. Then the treasure may come and may even increase the prices, but as the goods become necessities to others, their withdrawal from the market would be felt, and the export will continue and the country will grow rich, its standard of life will advance. Such causes have placed England high in the scale of industrial countries. Other circumstances that may hinder the law of international exchange—that the balance of trade ultimately tends to be equalised by equal exports and imports of goods—may be political conditions which may force one country to import from another without exporting equal goods in return, and the excess of imports may have to be paid for by the export of money. This is what happened during the last world war. The

Political
conditions,

European countries could not produce much, but consumed a good deal. This continued for a long time. The long period of time enabled other nations to step in the commercial field left vacant by the old ones. Japan developed her cotton industries, and the United States of America became the world's gold market.

The liabilities of one country to another have to be calculated, and as the currencies of the two countries are not likely to be the same their rate of mutual exchange has to be found out. The point where the rate is equal to the ratio of the metallic value of the current standard coins of the two countries is said to be "at par". If the two currencies are of the same metal, say gold, then the ratio of the weights of fine metal according to the mint regulations in the two coins is called "mint par" of exchange. When the ratio is below this it is called "below par" and when above, it is "above par". Supposing the exchange value of the rupee in terms of shillings is 1 Re. = 1*s.* 6*d.* or 18*d.* at par, if the rate is less than 18*d.* it is below par and if it is more than 18*d.* it is above par. What is below par for the rupee will be above par for the shilling, because if 1 rupee has a smaller value than 18*d.* clearly enough 18*d.* will have a greater value than one rupee. When the rate of exchange is such that the value of the currency of one country is smaller than the par value in terms of the currency of the other country then the less valuable has fallen in exchange while the more valuable is said to have risen. Thus if 1 rupee becomes equal to 15*d.* than the rupee exchange will be said to have fallen and the shilling exchange will be said to have risen. Opposite will be the case if the exchange rate were 1 Re. to 20*d.* Generally the rise and fall

of exchange is not so great. If there are no disturbing causes then the movements of exchange are confined between specie points. Specie points are points at which the treasure is moved from one country to another. They indicate that the difference between the exports and imports is too great to be adjusted by the ordinary transactions of exchange bills and so money must be paid. The specie points are two, the export specie point and the import specie point. Supposing x is the expense of transferring gold from India to England or *vice versa*, and $18d.$ is equal to 1 rupee, then if the rupee becomes equal to $18d. + x$ it is the import specie point for India, for it indicates that the imports into India have been very much less than the exports, so much that the difference can be adjusted only by transferring gold to India from England. What is import specie point for India will be export specie point for England, for the shilling exchange will be equal to $18d. = 1 \text{ rupee} - x$ and this will be the point at which gold would be exported from England in payment for its exports. Similarly when $18d.$ is equal $1 \text{ rupee} + x$ it would be import specie point for England and export specie point for India, where the rupee will be equal to $18d. - x$.

“Foreign exchange” is a term used both for indicating the sphere of transactions, i.e. international exchange, and also the rate at which the home currency can purchase foreign currency. One rupee equals $18d.$ or foreign exchange on London in India is $18d.$ or the Indian exchange on London stands at $18d.$ If it is more than $18d.$ the exchange is said to rise, and if it is less then the Indian foreign exchange on London is said to have fallen. The foreign exchange falls in a country when the imports are greater than the exports

Foreign
exchange.

Favourable and
unfavourable.

so that money has to be paid for the excess, it rises when the exports are larger than the imports causing treasure to flow in payment. We have seen that the balance of trade is said to be favourable when payment has to be received, and is unfavourable when payment has to be made. Therefore a rise of foreign exchange indicates a favourable balance and a fall an unfavourable balance of trade, or in other words a rise in exchange is favourable and a fall is unfavourable. Another set of terms used to indicate this are "for and against". The balance of trade and the rate of exchange is said to be "against" a country when its imports are greater than the exports and so there is a fall in the exchange rate. It is said to be "for" a country when its exports are larger than the imports and there is a rise of its exchange rate.

International
accounts-how
settled.

These rates are determined in the sale and purchase of exchange bills. Ordinarily if ten merchants in A sell to 6 merchants in B, and 7 other merchants in B sell to 5 different merchants in A, then the 6 of B must pay the money due from them to the 10 of A, and the 5 of A should make their payments to the 7 of B. Thus the money or the international money metal, gold, should pass both ways to liquidate the two transactions. But this movement of money can be avoided in a very simple way. Supposing the 5 merchants of A say to their 10 fellow-country-men "You have to receive money from certain merchants from B, and you will wait for payment till the money comes from the country B. Why suffer this trouble of waiting? We shall pay you your dues if you give us an order on your debtors in B to pay the money to us or to our order". The 10 merchants of A will readily agree to this proposal and will write out the necessary orders or bills, will give them

to the 5 proposers and receive their money at once. These five will send those bills to their seven creditors in B requesting them to realise the money from their fellow country-men, the 6 debtors named in those bills, and thus pay themselves. In this way the transactions on both sides will be completed without the passing of any money from one country to another. These bills are called bills of exchange. A bill of exchange is an order drawn by a creditor on his debtor to pay a certain amount due from the debtor to a certain person or his order, or to bearer.

The bills of exchange enable transactions to be settled between more than two countries.

Exchange between more than two countries.

Supposing there are four countries trading with each other A, B, C, D. If A has to pay B, B has to pay C, C has to pay D and D has to pay A, then all these transactions may be adjusted without any payment of money. Merchants in B will draw bills of exchange on A and will send them to their creditors in C, who will send them to their creditors in D, and the merchants in D will send them to their creditors in A requesting them to take their payments from their fellow-country merchants named in the bills. In this way all the transactions will be completed. The character of a bill according to the period of time for which it stands is termed *usance*. It may be a telegraphic transfer immediately payable. Or the bills

Usance—T. T.
At sight or on demand.

may be payable at sight or on demand, that is the moment they are presented to the acceptor or the drawee. If a short time say ten or fifteen days are allowed for payment then it is called a short sight bill. The drawee becomes the acceptor when he acknowledges his liability to pay the bill, and writes "accepted" on the bill.

If he refuses to pay then the bill is said to have been

Dishonouring a bill.

dishonoured and the drawer becomes liable to pay the holder of the bill. Even when the bill has been presented it is not paid at once, but three days of grace are allowed to make the payment as a matter of commercial custom. The bills may not be payable at sight but may give the debtor some time, as one or three months to make the payment. It is said to give credit to the debtor for that period, and then the bill becomes payable at the end of that period. It is called long exchange and its rate is called long rate. In such a case the purchaser of the bill deducts an interest for this period from the amount he pays, for his money is locked up for the time being. The drawer has already made an allowance for his own interest in the value of the bill, and so can afford to allow the purchaser to deduct his interest.

The banks act as intermediaries in arranging this exchange. The banks which do this work especially are called exchange banks. The banks in each country purchase the exchange bills from the creditors or exporters, and either sell them to those importers who desire to purchase a bill to pay in another country or send those bills for realisation to the countries of payment, while they themselves receive such bills from those countries, and so the claims of each are set off and cancelled, or the balance only, if any, is paid. Let us take a concrete example to make the point clear. Suppose there are exporters of 5 crores worth of goods in a country A. The imports in it amount to 4 crores. From the country B there have been 4 crores of exports and 5 crores of imports. Now the creditors or exporters of one country will draw bills on their debtors in the other country. There will be 5 crores worth of

Three days
of grace.

Giving credit

Long exchange
and long rate.

The function
of banks in
foreign exchange.

bills in A and $\frac{1}{2}$ crores of bills in B unless in some cases creditors refuse to draw bills and require the debtors to make immediate payment. Suppose exporters of 50 lacs of rupees worth of goods from A refuse to draw bills. Then there will be only $4\frac{1}{2}$ crores worth of bills in A. These bills will come to the bank in A. Let it be E. The bank in B is F. E will know that the $4\frac{1}{2}$ crores worth of bills which it purchases will have to be sent out for payment, and it can expect to receive in return only $\frac{1}{2}$ crore worth of bills as the total imports of A from B are only of that amount. E will pay the creditors or exporters of A in purchasing those bills. E must get this money back somehow. It will get $\frac{1}{2}$ crore by cashing $\frac{1}{2}$ crore bills which it receives from F, and will have to get $\frac{1}{2}$ crore in metal from F. It would be very convenient if E could purchase only $\frac{1}{2}$ crore for then no metal or bullion will have to be imported, so E's demand for bills will not be so great as the supply is, and the price of the bills will fall in A for E will purchase the excessive amount only if it gets them at a profitable rate. Whether there will be such an excess or not E finds out before hand from the returns of exports and imports periodically issued by the government's trade department. Similarly the conditions in B will be that $\frac{1}{2}$ crore worth of bills will be drawn. The imports there have been of 5 crores; of these importers of $\frac{1}{2}$ crore have not been able to induce their creditors in A to draw bills, and so will come to F to make remittance through F to A. Suppose F sells $\frac{1}{2}$ crore of bills to them then there remain $3\frac{1}{2}$ crores in bills which F will send to E in A for realisation, but it will receive from E $4\frac{1}{2}$ crores worth of bills for the same purpose. Of these $4\frac{1}{2}$ crores $3\frac{1}{2}$ crores will be cancelled by the bills sent by F. F will have to realise 1 crore more and send it to E. It would be very convenient if F

could get bills for this 1 crore also, for then no bullion or money metal or specie would have to be sent. So F's demand for the bills will be greater than the supply and the price of bills of exchange in B will rise. This excess of 1 crore also need not

be paid immediately. F may request Accomodation. E to grant F accomodation for the amount, and may tell E that it will send bills as soon as it gets bills when the tide of trade turns the other way. In the meantime F will pay interest on the sum to E. F will be able to pay this interest because F will realise the money itself and will be earning a higher interest on the money. If it is not, it will send the specie atonce to E. Or F may get bills payable in A from other countries and send them in payment of the excess, if A has imported more from other countries. Thus the balance amongst all the countries trading together will be struck through the action of these banks.

When a bank sells or purchases foreign currency for immediate payment, it is called sale or purchase of spot currency, but when the payment has to be made at a future date it is said to be a forward transaction, and has an element of speculation in it. If in one transaction a bank sells forward currency, it tries to arrange for the payment by covering it with a transaction for a forward purchase maturing about the same time. A forward transaction is like a long exchange bill. The forward rate also is settled in the present to avoid any trouble in the future, but it is different from the present immediate rate.

So far we have been talking about the sale of exchange bills as if they realised the full value shown in them. But in reality this will not be the case. If X in England draws a bill exchange for Rs. 1000 on S in India and Y

Spot and forward
sale and pur-
chase.

Discount.

purchases it. Suppose the exchange at par between India and England is 1 Re. = 16*d.*, then Y will not pay X full 16000*d.* X's bill will be realised some time after Y's payment: during this time Y will be losing his interest. He will have to incur the expenses of postage and insurance. He also stands the risk of non-payment of the bill, and he will charge something for the risk. All these he will deduct from 16000*d.* This deduction is called the discount.

In the foregoing illustration F purchases as well as sells bills. His rate for the purchase and the sale will be different. In purchasing he will deduct his interest, insurance and other charges. In selling he will not deduct interest but will charge a commission for transmitting the funds: this commission will not be more than the specie point and so the purchaser will purchase in spite of it. If the banker gives a bill which is not payable on demand but after some time, then from the price of his bill also an interest will be deducted by the purchaser. But generally the banks do give demand bills. The rate of exchange is governed by the price of the demand bills, for the deduction of the interest is a mere matter of calculation.

Bankers generally do also what is called arbitrage business. It may happen that the currency of a country A may stand at a lower value in a country C than in a country D. Then bankers in C will purchase A's currency or bills of exchange on A and will sell them in D. Their agents in other countries will inform them of the condition of the market in those countries and will receive orders to act by telegraph or telephone. This business of sale and purchase for the sake of the difference is called arbitrage. It is also done in international securities

or bonds, which are sold and purchased on the stock exchanges of various countries.

The rate of exchange changes with the conditions of trade. Supposing exports from India are greater than the imports into India. then there will be a larger number of exporters wanting to sell their bills of exchange so as to get ready money at once. The importers being small there will not be a sufficient demand for those bills. As the exporters are anxious to get their money at once they may be willing to take a little less than one rupee for 18*d.* Their bills payable in England will be expressed in terms of shillings and pounds while they will be paid in India in rupees. If they accept a rate which makes them sell 18*d.* for less than a rupee than the rupee exchange rises and the shilling exchange falls. If on the other hand the exports are small and the imports are large, then the export bills will not be many while the demand for them will be great. The exporters will become stiff and will demand more than 1 rupee for 18*d.* and as the importers are anxious to get these bills to pay off their debts they will pay the sum. The rupee exchange will fall as the rupee becomes less valuable in shillings. The value of the bill will then be calculated at the prevailing rate of exchange. If the exporters draw their bills of exchange not in terms of the foreign currency but in the home currency, as they sometimes do in England, then they need not be anxious about the exchange rate, for they will get their payments in the same currency; still there will be a deduction for the risks of non-acceptance and for interest and other charges.

Ordinarily the rise and fall of exchange due to the increase or decrease of the exchange rate is limited by the specie points, because if the fall in exchange is greater than the lower

Rise and fall
of the rate.

Variations.

or export specie point, it will be profitable for the importers to export specie or bullion rather than pay high price. If the rise is greater than the upper or import specie point, it will be profitable for the exporters to await the coming in of actual specie from their debtors, and then receive their payments than selling their bills at a too low price. While this will be so under ordinary trade conditions, the variations may be far greater than these specie points on account of special causes, such as inflation of currency, or of a change in the relative value of the precious metals when the exchange is between two countries using different metals for their currencies, or it may be due to political unrest and insecurity, or restrictions on the movement of specie from one country to another as in war time. When there is an over issue of paper currency in a country gold becomes scarce. Paper may be accepted for payment internally, but foreign countries will not accept paper money in exchange for their goods. Gold, however, is not available, and if a merchant goes to a dealer in gold, the dealer may refuse to sell gold for paper unless he be paid for the gold more than the usual amount. Such was the case in war time in India. Sovereigns became scarce. Although the currency value of a sovereign was only 15 rupees but they could not be got at that rate, and 16 to 20 rupees had to be paid for one. This increase in their value was the premium on gold, or the excess in the terms of the current money over the previous value of the coin. The foreign merchant has got to be paid in gold, and so gold will be purchased even at a premium. As a result the exchange rate will vary. If the par value of a rupee is 16*d.* and there is a permium on gold of say five rupees per sovereign,

Ordinarily
due to exports
and imports—
within specie
points.

Special
variations.

Inflation.

Premium.

then one rupee becomes equal to only 12*d.* in gold. It is clear, therefore, that in the exchange rate this premium will have to be allowed for, besides the usual discount charges and the variations due to the excess or deficiency of exports. The rate will act as if the par value had come down from 16*d.* to 12*d.* gold.

A similar effect may be produced by a change in the relative values of the metals, where the metals used in different countries are different. This may happen when there is no other disturbing cause, when there is peace all round and the trade is brisk. The silver for sale in the market may increase or decrease, may lower or raise the price of silver in terms of gold and dislocate the exchange of the silver using countries. In India the value of the rupee fell immensely between 1873 and 1893 when some European countries discarded their silver currencies and adopted gold. On the other side when in 1918-19 India purchased huge quantities of silver from the United States of America, the price of silver rose high and up went the rupee exchange. In these cases the effect is as if the par value itself is changed.

Exchange rate may vary beyond the specie points because of political insecurity and uncertainty. If the government in a country is not stable, the exporters to that country will become nervous. They will not be quite certain of being able to get their money back, and so will be willing to accept a price even lower than the import specie point and have ready money rather than wait for their money to come from their debtors. The importers also will like this method of transmission of money in view of the unsettled political conditions in the country, and, moreover, they will be getting a bill to

pay off their debts at a cost lower than they will have to incur if they send actual money or specie. The variations in the exchange rate caused by special causes remain so long as those causes do not disappear, while in the ordinary variations due to mere increase or decrease of exports and imports the variations tend to be adjusted by a change in the direction of trade, and sooner or later the point of equilibrium tends to be established.

Variations in the exchange rate do not merely increase or decrease the value of the exchange bills, but have a great influence on the trade and industry of the country. Generally a rise in exchange tends to discourage exports and to encourage imports. Suppose the rupee rises from 16*d.* to 24*d.* then to those in India one rupee will purchase 24*d.* or goods worth 24*d.* from England. The prices in England will still be the old prices in shillings, so they will appear to be cheaper than before in terms of the rupee. Merchants in India will rush to buy from England. On the other hand prices in India being still the rupee prices, 24*d.* will now purchase one rupee worth of goods from India which formerly used to be done by 16*d.* only so to merchants in England Indian goods will appear to be rather dear in the terms of shillings. The opposite effect will follow a fall of rupee exchange. If a rupee becomes equal to 14*d.* imports from England will be decreased and exports from India will be increased. These are the effects which have actually appeared at different times. In the period about 1873-93 the rupee exchange fell heavily and the British manufacturers were badly hit, and when the rate was raised to 2*s.* a rupee on the recommendation of Babington Committee, there was a rush of imports from Britain.

Effects on
exports and
imports.

The rise or fall of exchange produces a change in prices as well; a rising exchange indicates that large exports have been made and treasure is received in payment. This new treasure will increase prices in the country according to the "quantity theory." Opposite effects will follow a fall in exchange as it will mean an export of treasure, but at the same time a counter effect is produced on the internal prices.

Thus a rise of exchange will also tend to depress prices. The imports are purchased cheap in terms of rupees and so are sold cheaper. The exports are discouraged by the rise in their external prices. Their price is brought down by the decrease in the demand at the higher price. Our exports consist of necessities of life or raw materials, it is true, but most of them have a world market, and if their shilling price rises above the world price, the demand is likely to be diverted to other countries for the time being; although ultimately our exports will be taken up, but in the mean-time this diversion will have decreased prices before exports recover. The internal prices, therefore, will be lower with a higher exchange. Conversely they will be higher with a lower exchange, for then imports will not come in, or if they do, they will be taken at a higher price than before, while the low prices of the exports will encourage their demand, and the rise in the demand will tend to increase the internal prices till they come up to the world level.

As has been explained before when internal prices are high there will be an increase in production, and when the prices are low, there will be a depression in industry. With low prices or a high exchange the manufactured goods of other countries will dump into the country and will injure the home industries by their competition. The home

manufacturers will find their profits decreased, new ventures will be discouraged and the old producers will be working short time or will be otherwise in financial trouble. Not only the industrial producers but also the agricultural ones will be hard hit, the former by the competition of foreign goods and the latter by the decrease of the demand for their produce. In the case of manufacturers any opportunity to the foreign producers will mean an increase in their external and internal economies and in their capacity to produce at a cheaper rate, and so the advantage they get in the home market because of the high exchange is likely to be maintained even if it falls later, provided the rise has lasted long enough to enable them to adjust their productive resources to the increased demand. For the same reason the injury to the home producers may remain even when the exchange returns to its former level, for in the meantime the home producers may have lost their markets, some may even have closed their works, and when the exchange falls, it may find the home producers unable to take advantage of it. Moreover, in commerce the habit of dealing with a particular producer or in particular goods means much, and so a market once lost is not always so easy to conquer again. It has to be reconquered at a new expense of resources. In the case of agriculture the effect may last long because the cultivators are generally poor and indebted. They are specially so in India. One failure of crops saddles them with a never-ending debt. For such people even a temporary decrease in demand may throw them into the hands of the money-lender and enduring harm may be done to them. A fall in exchange will have the opposite effects. It will enable the home producers to sell largely as the foreign competition is decreased. This will increase their production and will enable them to extend

their works. It will also put the agriculturists in funds and may even enable them to pay off their debts.

From the above it must have become clear that a fall in exchange increases the purchasing power of the people. By helping the industries it gives work to numerous labourers, and by helping the agriculturist, it increases the purchasing power of the vast majority of the people. On the other side a rise in exchange decreases the purchasing power both of the agriculturist and the factory labourer, who is thrown out of work. Therefore a fall in exchange is beneficial even though it raises internal prices, because it also supplies large funds to purchase even at rising prices; and for an advance in the standard of living the increase of purchasing power is the material consideration. If one has got money he may purchase even high priced goods, but if his pockets are empty even low priced goods are beyond his reach. The increase of money is due to the increase of his production, and this is perfectly clear that if a person produces more he will have more to consume than will be the case when he produces less. Production is the first step in economic activities and the most important, for the extent and efficacy of exchange will depend upon the quantity produced. Consequently a falling exchange, which helps home producers, is beneficial. A falling exchange is an evidence of excess of imports but it encourages exports thus neutralising the excess, and bringing the conditions to a normal state. The same tendency to a normal point is present in the case of a high exchange, it also tends to come down to a lower point but it does harm to the home production in the meantime.

If the causes of the exchange fluctuation are

Correcting
exchange
artificially.

abnormal then special measures for correcting it are required. For example if there is a depreciated paper currency it has to be deflated. Or loans may be raised in another country, or securities may be exported to that country so as to create a demand for the currency of the exporting or borrowing country, so as to pay the loan or the price of the securities. This demand will increase the value of its currency in terms of the foreign currency, or will raise its exchange, and thereby prevent funds from flowing out of it. The same thing is done by raising the rate of interest, which, as has already been explained, stops the outflow of money.

In the end we should note that the foreign exchange may be quoted in two ways.

Two modes of
quoting
exchange rate.

One way is, that which is adopted in the text followed in quoting Indian exchange. According to this, the exchange rate tells us the value of a rupee in terms of shillings. Another way is that of quoting the amount of home currency which has to be given for a unit of the foreign currency, *e. g.*, when francs are quoted for pounds in Paris. Consequently in studying foreign exchange quotations we must keep these two methods in mind.

FREE AND PROTECTED FOREIGN EXCHANGE.

Great controversy has raged round the question whether free trade or protection is beneficial to a nation. By protection is meant protecting the home producers from foreign competition by imposing import duties on foreign goods as they enter the country. Free trade disapproves of all such restrictions. The free-traders advocate perfect freedom of movement for goods, so that they move to the most profitable market

Free trade—its
advantages.

quite freely. Theoretically the advantages of production are with free trade. It produces a specialisation of work by nations. The foreign competition will not allow a nation to engage in those branches of production for which its resources are not well suited, or are not as good as those of others, and will compell it to take to those productions where it is able to produce more cheaply and efficiently than others. Thus the producing capacity of the nation as well as of the whole world will be increased. We have seen that production is the first and the most important step in economic activities. Upon it depends all the subsequent operations. Therefore, the increased production under free trade will also mean increased consumption and higher living. The purchasing power of the people will increase and their standard of life will advance. The amenities of civilized life will become available to them. Increased production will enable goods to be produced cheaply and every one will have a larger share of the wealth to enjoy than he had before.

What is even more important from the point of view of production is that free trade will produce an improvement in the methods of production. The stress of foreign competition will not permit the home producers to become idle or careless, but will force them always to remain on the look out to improve their methods, to adopt the newest inventions, to effect all possible economies, so as to produce as cheaply as possible. This will, besides giving us cheap goods, lead to increasing power of man over nature which is the essence of material progress. If on the other hand the home producers are protected from foreign competition, then they are likely to be-

come slothful, secure in the safety of their position, and this will stand in the way of the industrial advance of the nation. Protection once afforded is difficult to remove, because the protected interests become politically powerful and oppose any such attempts. It is therefore a danger to be avoided, a block in the progress of the nation. The path of advance should be free and clear.

While theoretically this has got much force, we should remember that this is true only on the supposition that international exchange is quite free. We have seen in discussing the differences of national and international exchange that in the international sphere, even if the economic conditions be quite free, the political conditions stand in the way of a free movement of labour, which loses its power of engaging in the most remunerative occupation. We also saw that the work, which may fall to the lot of a particular nation in this scheme of specialisation, may be more unprofitable than the one from which it is driven out, because this will depend not only on the question of grater or smaller resources but also on the existence of foreign competition in an industry and its absence in another. Thus even with free trade there is no certainty that the expected advantage will be secured. The result may be quite the contrary.

Just as the sweating of labour was defended on the basis of the doctrine of free competition, similarly here the authority of freely working forces is invoked. But an unequal competition can never be free; like the capitalist employer that nation in the international trade stands at an advantage which has been the first to organise its productive resources. To make competition equal first let other countries also have an opportunity to do the

A parallel
to the labour
problem.

same. Protection is the trade union of international exchange. For a poor country with small resources there will be little chance in a system of free-trade. It will simply be wiped out from the field of production and its nationals will live a very poor life. Even this may be quite proper from the view-point of the production of the whole world and the principle of the survival of the fittest, but such principles will not induce a weak person to consent to his destruction to enable the remaining population to enjoy a better cheer, nor would the rest of his fellows suffer this to be done. If they do then it is a degradation of civilisation rather than its advance. If civilisation does not mean a chance even for the weak to live as healthy a life as they can, then it is nothing better than a society of brutes. Even then the right of the weak to protect himself cannot be denied. Free trade makes a nation dependent upon others for its wants, and in times of war this dependence may be very inconvenient indeed.

Economically, as has been explained, a nation may be forced to unprofitable occupations. The variety of work for labour will be destroyed, and even the constancy of work may not exist, because the home industries will be injured by the competition of foreign goods. If agriculture remains to be the main work of the nation the employment for a vast majority of the people will be only intermittent, as there the labour does not get work all the year round. It is true that foreign competition may provide cheap goods, but it may at the same time decrease the power to purchase even those cheap goods. Free trade instead of increasing the total production of a

The right of protection.

Injuries to labour.

Injury to home industries.

Decrease of purchasing power.

nation may actually decrease it by forcing all persons of different capacities to engage in one kind of work to which they are not fitted. If the labour power of a country does not get full work its productive powers will not be employed to the best advantage and the total production will be much less than what it could have been.

Decrease of
production
possible.

Theory of
specialisation
may not be effective and even
suitable industries may not
develop.

Further it is not necessary that foreign competition should injure only those industries for which the resources of a country are not so good. We have seen that in commerce the habit of purchasing from a particular dealer, or a particular kind of goods means much, and so it is quite possible that a country may have quite good resources for a particular industry and may yet be unable to engage in it, for the market is in the hands of those who entered the field earlier, and now it can "conquer" that market only if special facilities be available to it. Therefore the theory of specialisation may not really work in practice, and indeed protection itself may be necessary to enable it to work properly.

Moreover it will be noticed that the advantages of free trade apply rather to manufacturing countries. It is there that an increase in production will lead to increasing economies and cheap goods.

Even there the foreign competition may prevent quite suitable industries from a rising on account of initial difficulties. But when once established it is undoubtedly profitable to a manufacturing country to have free trade in itself as well as in other countries for thereby it will be able to send its manufactured goods to other countries and get their raw materials for its use, and as trade increases the cost of exchange

May be
harmful to
agricultural
countries.

for the manufacturing country will decrease and its wealth available for its consumers will increase. It is quite otherwise for an agricultural country. There the increase of the demand for its produce will increase its cost as it follows the law of diminishing returns, and so the cost of exchange to such a country will increase with the extension of exchange, its labour will not be so remunerative, and its purchasing power will be small. What is necessary is to increase the variety of occupations in such a country so as to keep its labour fully employed, even though it be at a cost of productive efficiency in comparison with countries who have been earlier in the field and whose production is already advanced. For this purpose protection may be necessary.

It may be admitted at the outset that protection also suffers from serious disadvantages. The first is the elimination of healthy competition, for the fact remains that competition does make a person look about himself and be more careful. In the case of those industries which are just rising competition may be harmful, but in the case of those which are already established competition is undoubtedly salutary, and indiscriminating protection is not helpful to the nation's interests. Secondly this is also true that protection is costly to consumers. Whether the industry be rising or be established the absence of competition does make the producers feel secure and may make them not only careless in their methods of production, but may even induce them to raise the prices of their products rather unduly on account of the limited monopoly which they enjoy. But in this connection it should be noticed that this power of increasing the prices will decrease with the development of internal competition. When an industry

becomes profitable on account of protection, new producers will take to it and will create a competition which will again reduce the prices. Moreover even the rise of prices for the time being is not so harmful in the case of new industries as at the same time they increase the work to be done by labour, and so increase the purchasing power of the people, which, as has been explained, is more important than the prices.

But the difficulty with protection is that once granted it tends to become permanent. It should not be discriminating only but has also to be temporary. This is however, a matter of administrative detail, and a system of a tariff board recommending periodical protection and keeping a watch on the utilization of that protection may be adopted. The Government of India has already given a lead in this direction. Further, this danger of permanence is decreasing with the advance of democracy.

Then there is the question of tariff wars. If one country raises a tariff against another, that other also is likely to retaliate, and this may in the long run do harm to the former. It depends upon the particular circumstances of an individual country. In deciding about a tariff against another country the trade between the two countries should be carefully examined to estimate the loss and the gain expected. Sometimes it may happen that a foreign producer may dump his goods in a country even below cost price only to drive out the home producer. He may even be helped by export bounties of his own country. Although such dumping also may stimulate the home producer, still it may be advisable to protect him against such cut-throat and unfair competition. Generally a manufacturing country stands to lose from a policy of protection unless it has for some reason fallen back

Tends to
become
permanent.

Tariff wars,
retaliation.

in production. In that case it may be necessary to protect its production to enable it to recoup itself. On the other hand it is useful to an agricultural country as it enables a variety of occupations to be developed.

There is no doubt that protection does develop such a variety, it does help new industries to prosper. It is specially useful for new manufacturing industries, because the demand for manufactured goods is more flexible than that for agricultural ones, and so the rise and fall of prices

Advantages—
necessary for
new industries
specially the
manufacturing
ones.

has a greater and more lasting affect on the prospects of manufacturing industries than it has on the agricultural ones. Consequently it is necessary in their case to protect them in their initial stages. The variety of occupation will increase the demand for more labour to engage in the new industries, will give work to the unemployed. It will give sufficient work to labour and so will increase the total production. The development of all industries will make a nation industrially independent of others and will save it from being handicapped in times of war. Indeed there is hardly any country in the world which has done without protection always. Even those who advocate free trade had been protected countries at some time before their position in production was firmly established, and in the post-war period also they have returned to some kind of protection. And

Protection and
economic theory.

this is not against economic theory for there is the fundamental difference between national and international exchange. The principles which apply to the former do not apply entirely to the latter.

Protection may be granted to an industry in many forms. The usual one is the imposition of duties. Duties are taxes imposed upon

Forms of
protection.

goods coming into a country or going out, or even when produced internally. The last are called excise duties. They are not imposed for the purpose of protection, but for getting a revenue for the country. The duties imposed on goods coming from foreign countries or going out to other countries are called customs duties. They can be imposed both for revenue as well as for protection, but both purposes cannot be properly united in the same duty. The duty imposed for revenue will try to be such that it may yield the largest amount of tax. This will be possible only if the consumption of the commodity is not decreased very much by the imposition of the duty. On the other hand the purpose of the protective duty is to stop the import of the commodity by so increasing its price that the people may refuse to use it, and may use the home produced commodity instead. So it will be far heavier than the one imposed for revenue. The great advantage of customs is that they are easily realised at a small number of places where the foreign trade is centred, the outposts of the country, and their payment is not felt by the public, although it is the people who ultimately pay higher prices, whether of the imported goods or the home produced ones. This is the indirect form of taxing the people.

Consequently sometimes bounties and subsidies are advocated as being direct forms of protection. They make the people aware of the amount of protection they are granting to an industry or the cost of that protection to the tax payer. Further, bounties can be graded according to the needs of particular producers. Customs duties provide the same protection to the

Excise duties for revenue.

Customs.

Difference of revenues and protective duties.

Advantages.

Bounties-advantages.

weak and the strong. The former may not have sufficient while the latter may have a greater protection than they really need, a useless tax on the community in such a case. Moreover bounties do not prevent the import of foreign goods and so keep up the healthy competition necessary for progress in production. As they do not affect other countries they do not provoke tariff wars. Some even suggest the taxation of agricultural, mineral and other interests for the purpose of paying a bounty to the manufacturing ones. If a tax is levied on those commodities which follow the law of diminishing returns, and thereby their price is increased and their production is decreased, then the cost of the decreased production will be smaller, and so the price will rise by an amount smaller than the tax, and the loss of the consumer's surplus will not be as great as the amount of the tax would indicate. On the other hand if the yield from this tax is given to the manufacturing industries it will increase their production and lower their prices by more than the bounty, as the cost of production also will decrease with the increase in the production, and thus the consumer's surplus will be increased by more than the amount of the bounty granted. But in this case the singling out of particular interests to be taxed may create opposition, and may even create hardship as the cultivators are not known for their wealth and prosperity. In spite of its great advantages a bounty may not be suitable for a country where the direct form of taxation is not likely to be appreciated. A greater reason is given by those economists who argue that in the case of customs a part of the cost may be borne by the foreign producer. He will like to keep his markets as much as possible, and will not raise his prices if he can help, or will raise his prices as little as he can.

Sometimes a foreign producer supplying several markets distributes the cost of the duties on all his goods, thus making the general rise smaller. Or if he is producing many kinds of commodities he may distribute this cost partly on other commodities. But in such cases the duties will have to be raised till they are effective in protecting the home industry; then the imports will stop and the foreign producer will pay nothing. It is true, however, that the rate of the duty can be made a little higher than is actually necessary, and a part may be borne by the foreign producer. The foreign producer bears

Export
bounties.

a duty substantially only when the protecting country has a monopoly of the demand of that particular commodity. This is not likely to be realised so long as human beings of similar nature and wants live in other places also. Sometimes export bounties are given on that portion of home produce which is exported. Such bounties decrease the export price of the commodity while the price internally remains the same. This helps the commodity in competing in foreign markets and in capturing newer markets by placing it at a cheaper cost in those markets than the cost of production of those countries. Later on the increase in its production will lower its cost and the internal price also may be lowered. When a country so subsidises its foreign trade, it provokes retaliation. And it should be noted that the purpose of this subsidy is not to protect the home trade but to enable the home producers to capture new markets.

Other forms of protection are guarantees of interest, free grant of land and other aids. In a guarantee the state promises to recoup the producers if the yield from the investment of their capital is below a cer-

tain rate of interest. This also has the advantage of regulating the aid given to the needs of the producers, of keeping up the foreign competition, and of being a direct form. But it has the disadvantage of making the producer a little careless since he is sure of his interest; and although increased exertion on his part may yield him greater profits, but it will also lose him the government guarantee. Such considerations, however, do not affect very greatly as no body will like to trust on government aid for ever and refrain from developing his trade for that reason.

Other aids are the free grant of land, or rights to exploit raw materials on favourable terms, or the supply of technical experts. All these and such other aids help in decreasing the initial costs, which is the chief purpose of protection.

A compromise of free and protected trade is sought to be presented in the doctrine of "fair trade," which advocates protection only in retaliation. This admits protection, while making a pretence of free trade. In practice it will be full fledged protection, as so many countries in the world will provoke such retaliation. The friction and restrictions sought to be avoided are reintroduced.

Imperial preference is another such proposal to introduce protection by the back door. It proposes that the Empire countries should give preference to Empire products and impose lighter duties than on the goods of other countries. But if protection is useful for the Empire as a whole it will similarly be useful for a nation. To give preference a duty will have to be imposed on the goods of other countries even

where there is none at present. This means the introduction of protection. It may cause friction with other countries and may provoke retaliation. Whether it will be economically advantageous to a component country depends upon the proportion of its trade within and without the Empire, and individual cases have to be decided on their merits.

CHAPTER XXI.

MACHINERY OF EXCHANGE—MARKETS.

Having studied the principles which govern the exchange of commodities and the forms that an act of exchange assumes, it now remains to study the machinery that helps in the development and completion of exchange. It may be considered for the sake of convenience under the heads (1) Markets, (2) middlemen (3) Banks (4) Other institutions.

Markets were originally the places, where the dealers in goods met the purchasers.

Kinds of Territorial. In old days in England the holding of a market was a privilege granted by the crown. It carried a right to levy a toll from those, who came to deal in the market. New markets were not allowed to be set up near the old once and legal suits were brought against those who did so on the ground of the nuisance and damage that they caused to the older market. The general rule was that there should not be another within the six miles of one already existing, as this was a distance which a man could easily travel and return in one day. Thus the territorial idea was the predominant one in these cases. These markets were held at appointed times.

Peths.

Such markets are in vogue even now in many parts of India, where the dealers from the surrounding parts of the country meet together on a fixed day every week. They are called "Peth". Then there are the numerous Indian fairs which enable the dealers and purchasers to come together from distant parts on certain days in the year and a large volume of business is done.

Fairs.

Even now the territorial sense is present in the ordinary meaning of the term market. We speak of the vegetable market, the cloth market, the grain market in a town. They are often named "ganj" or "mandi" in Northern India and the existence of towns with those names indicates that at sometime they were sites of such markets.

But from these territorial markets for particular commodities developed the general commodity markets. As a rule a dealer in a commodity likes to have his stall near the stalls of other dealers in the same commodity.

How they develop.

dealers and

Territorial proximity.

Telegraph and telephone.

It has two advantages. Firstly the purchasers are likely to come to that place first as they will find there many a variety of goods to choose from. Secondly close proximity enables the dealer to keep himself informed of the condition of the market, what other dealers are demanding for their goods, and what the condition of the demand is. With the development of communications, the railways, telegraph, the telephone, the postal system, the printing press, it has become possible for a dealer to have these advantages of close proximity even while remaining at distance. He can know the conditions of the market, and the purchaser also need not go to make his purchases always to the market but can get numerous things sitting at home. This has decreased the necessity of territorial proximity and has developed general commodity markets, or spherers of transactions in which the purchasers and sellers of a commodity can come together freely. The extent of freedom is indicated by there being one price for the same quality of the commodity in market except for the cost of freight, octroi or duties and such other special charges that

may attach to any particular locality. So now in the scientific sense a market means that sphere of transactions in a commodity in which one price rules for that commodity except for the different cost of delivering it in the different parts of the country or the world.

In another part of the book we have studied how markets developed from village and international markets. The first two are examples of territorial markets while the latter two are those of commodity markets. It should be noticed that even in the case of the commodity markets there may be central places where the international transactions may take place, such as London and New York. But while a great amount of international dealings may be concentrated at these places it does not mean that the conditions of a market will not apply to other distant places. If a commodity has an international market, then its price will be affected everywhere by the changes in its world supply and world demand, although it is true that these changes will be reflected sooner at these places of central dealings than at other places, for the dealers in these places keep themselves well informed. But from these places the news will spread everywhere. Even in isolated places rumour gradually filters in and affects the course of prices.

The development of the means of communication and information has made it possible to develop such huge and wide markets. It is necessary for a large market that communications be not merely developed, but that they should be free. Impediments like prohibitions of exports, protection octroi, are checks to this development of markets. Octroi or customs duties imposed for the sake of revenue do not act as great hinderances, for they are

Conditions of a large market.
Free communications.

paid by the purchasers as the increase in the price is not so great as to decrease their demand very much, but in the case of the protective duties the market for a commodity becomes definitely restricted. The greater the freedom in a market the nearer will be price all over the sphere of transactions in that commodity. It should be easy for producers and consumers to come in contact freely, and it should be easy to move goods from one place to another so that the price may be uniform. If they are selling dear at one place then goods from other places may come there to increase the supply and bring down the price.

But all commodities cannot have a world wide market. Only those commodities which are in general demand will have a wide market as they are wanted every where. Such is the case with gold, silver, cotton wool, wheat. The first two are required for ornaments, arts and for currency. The latter are first necessities of life. But even this condition is not sufficient. The commodity must be portable and durable. If it is perishable like vegetables it cannot have a wide market, for it cannot be easily stored and transported. Fruits in the form of tinned fruits may be sent to any part of the world, but fresh fruits cannot be sent to very distant places across the seas; nor are stones quarried in a place carried to distant places unless they are very valuable. In this respect gold and silver are better commodities than cotton or wheat. Another quality for developing a wide market for a commodity is its cognizability and gradability. If the qualities of a commodity are so many that it becomes difficult to order from a distance, and personal choice is necessary then there will not be a large market for such a commodity. Such is the case

Qualities of
commodities—
General demand,

Portable and
durable.

Cognizability
and gradability.

with the manufactured articles of food and dress. A baker's wares or a tailor's goods require personal choice of the purchaser, but any grade of cotton or any amount of gold may be bought from a distance, because their qualities are fixed and well known, any deception in their supply can be easily detected. The market for precious stones is limited to local conditions for much depends upon personal choice. Indeed even in a locality there cannot be said to be a perfect market, as the price of individual gems will be different, and will depend also upon the appraising ability of the purchaser.

A third condition for the development of a large market is that there must be security. In times of war the markets become very limited and narrowed. This is the reason why the national market is more stable and secure, and maintains its characteristics even in times of war. This difficulty was very great in the middle ages when petty chieftains were constantly at war with each other. The markets increased in extent and influence with the development of large national states, and in modern times have grown into international markets.

Sometimes markets are differentiated from the view-point of their duration, as a daily market, a short period or a long period market. The duration depends upon the characteristics of the commodity and the demand for it. If a commodity is perishable it can not have a long market. Fish market will be a daily market, as the fish will be spoilt by being kept. The demands also in them will be a daily demand. They will be required for daily consumption, and will not be stored for future. Durable goods will have longer markets. But if the demand depends upon the passing whim, fancy or fashion, the market will not be very long. It is long for those articles for which the demand

is lasting and recurring, *e. g.* necessities of life. The market for a commodity, the supply of which is limited and is incapable of increase, will necessarily be limited to the time required to absorb the existing supply. Even in the case of those commodities, which can have a long market, a short and long market may be distinguished. It is short when it refers to the existing supply of the short period. It is a long market when it refers to the long period in which fresh and increased supplies can be put on the market.

Economically markets are of the greatest importance. Mere production without exchange will not satisfy our wants so well, as everyone cannot produce all the things he requires. Exchange is a necessary step to increase the comfort and welfare of men. This exchange is necessarily limited under conditions where every producer has to run about to find a purchaser. When the purchasers and buyers meet together at a central place exchange is undoubtedly helped. Now everybody knows where to find a thing or where to sell it. He does not waste his time but goes straight to the market place. This saves time which he can now employ in production. The increase in the exchange transactions increases the total utilities of the community, for in every transaction the total utilities of the parties to the exchange are increased. Moreover markets bring a class of dealers into existence. These dealers make it their business to store commodities when they are not wanted and so are useless, and sell them when their utility is great. Similarly they bring commodities from a place where they are not of great value to the market where the purchasers can see them and take them, thus creating utilities which would not have

Importance of a place of meeting.

Increase of utilities.

been there in such quantities, if markets were not developed. Markets give an impetus to production. If there is a possibility of selling an increased quantity of produce, the production will be increased, otherwise no one will produce a thing simply for the pleasure of looking at it. And markets do increase the possibility of exchange by bringing many buyers to the place. Further, dealers bring new goods from different parts of the country and even create new wants by showing them to the buyers, who, if they like them, make the purchase. Thus a new direction to production is given. New demands are created, production is stimulated and industrial life advances.

The first law relating to markets is, as we have seen, that in that sphere of transactions one price rules for the same quality of a commodity except for the cost of freight and other charges that may have to be paid in transferring it from one place to another, this is called the law of indifference. We have also discussed the law of indifference. We have also discussed the law of markets in connection with economic crises, that if production is increased in all branches of production then the overproduction in one branch is absorbed and a crisis is avoided, because the ratio of exchange between the different goods remains the same, so their equilibrium of demand and supply is not disturbed and overproduction does not lie on hands any longer. But in practice such general increase of production is not possible, and this is why occasional disturbances in the industrial life of a country do appear still.

The laws of the equilibrium of demand and supply have been discussed. We have seen that

Equilibrium of demand and supply. the demand and supply of a commodity balance at a point where the largest quantity of that commodity can be sold. In the determination of this point for short periods the extent of the available supply in the market in relation to the demand is the most important. If the supply is great, the price will not rise high, if the supply is small it will rise. In long periods the means of production can be adjusted and so the point of the balance will again tend to come to its normal equilibrium.

The extent of the market also influences the fluctuations of this point of equilibrium. The larger the market the smaller the fluctuations and margin of profit. The larger the market the smaller will be the fluctuations of price, and the narrower will be the margin of profit taken by the dealer. The reason is that in the case of a large market the demand and supply of the commodity are so great that any ordinary increase or decrease of demand or supply in a place will not produce a great effect, and whatever effect is produced, it will be distributed over the whole wide sphere of the transactions in that commodity, because if it becomes dear in one place its supply from other places will rush to that place where a higher price prevails and will moderate it at once. Moreover a commodity having a large market is likely to be one of general demand, and so its supply as well as its demand will be great. Much business will be done in it, and the dealers will make many turn overs of their capital. They will take a certain quantity, will sell it and with the money so set free they will purchase a fresh quantity and will go on repeating this operation. The possibility of these frequent turn overs will induce them to accept a smaller margin of profit per article so that they may sell off their goods as soon as possible and make

rapid turn overs and get large profits in the total period of time. This is so in the case of commodities which are in constant demand, are easily transportable and are imperishable. In the case of seasonal produce like wheat and cotton so many turn overs are not possible as they are in the case of gold, silver and first class securities. By securities are meant the papers which are certificates of a right to a certain amount of wealth whether in the possession of a company or of a government. Examples are the stocks and shares of limited companies and government bonds. Even in these securities those, the issue of which is large, and so which are often being sold and purchased at the stock exchanges of the world, are dealt with at a smaller margin of profit than those the issue of which is not so great, and which come in the market rarely. This margin may be so small as even one fourth or even one eighth per cent. These conditions are realised the better in the larger and in the free market. But these conditions apply to wholesale markets. The conditions of retail markets, which are local markets we have already studied in discussing how the price of a commodity is determined between two sets of buyers and sellers. In local markets also there may be places for dealings . wholesale markets the conditions of which will be largely influenced by the conditions of the general market in those commodities as above described.

CHAPTER XXII.

MIDDLEMEN.

Like markets middlemen also have helped the development of exchange very greatly. So long as they did not appear themselves the markets were limited and production also was not great, for then the producer and the consumer were obliged to come in direct contact and this involved a waste of time which could otherwise be used in increasing production. The appearance of merchants is a further division of labour in the production of utilities. They make it their business to take the goods to proper places where they may find purchasers and thus take away a large amount of trouble, and worry off the hands of producers. As this work becomes the particular business of the merchants they are able to go to distant places, and even foreign countries, and sell their goods. The producers cannot do so for they have not the time nor the inclination for this. If they do so their production would stop. In the old days of distrust and isolation it was not always easy to sell in foreign markets. Thus in the days of the guilds a foreign merchant could sell only wholesale to local merchants, and that also at a specified time and place and on the payment of a tax. The arrangement of all these things was better left to persons who were not actual producers.

These merchants and middlemen help not only the producers but also the consumers. They save the trouble which they would have had to undertake in searching for the things they want. Without the

merchants the produce of distant lands could have been scarcely available to us. They

Make new things available. create new wants and new incentives to production. They are useful not only in this way, but they actually increase the utilities of the goods by storing them and transporting them to

other places.

If it was possible for producers and consumers to come in direct contact in old days it is not so easy now when things are produced wholesale. The large manufacturer has no time to look after the retail sale of his goods. To manage the

A necessary link between whole-sale producer and consumer. selling side there is a commercial manager, besides the factory manager, he has to dispose of such large quantities of goods and so rapidly that he cannot arrange for the retail sale of these goods and some middlemen are necessary to act as a link between him and the consumer. Thus the middleman has become a necessary part of the modern machinery of exchange. Even where consumers form a consumers' society, which purchases goods wholesale from the producers, the society acts as the link. The only difference between the society and an ordinary merchant is that the profits of the merchant go to his private pockets, while the profits of the society are distributed to the members on some plan or other. But in every case a middlemen between the producer, who generally sells only wholesale and to the consumer, is necessary.

The institution of these middlemen has enabled a great increase of production. It was so in old days and it is so now. They save the time of the producer and increase the demand for his goods by showing them to consumers and creating desires and likings. They were necessary in old days be-

cause they could carry the goods far, and they are necessary now because they can sell and distribute the goods, which they take wholesale from the large producer.

But while a moderate number of middlemen are good, an undue increase is also an evil both social and economic. Just as a great increase in the number of producers of a commodity decreases the price of that commodity and the profits of the producers by competition, similarly an increase in the number of merchants decreases their profits, and leads to a great deal of even undesirable competition. There is any extent of untruthful advertisement, dishonest dealing and adulteration of goods. Such tactics not only produce a general distrust and act as impediments to free exchange and so are an economic evil, but they are a social evil also in as much as they increase deception and cheating. In this connection the rule of the old guilds requiring foreign merchants to sell under restrictions was very helpful. Generally untruthful dealings are not so easy in the case of local dealers as they are in the case of distant ones who work by the V. P. P. system, and so a regulation on the activities of these distant merchants is necessary. Even in the local markets adulteration of goods is a standing danger to public health. In India there is a general complaint about the adulteration of milk and "ghi" which is doing untold amount of harm to the health of the nation.

Another disadvantage is that there is a divorce between the wholesale and retail prices of the goods. The retail price is higher than the wholesale one. A small margin is quite justified, for the middlemen also produces some utilities and so is entitled to

Evils.

Untruthful
advertisement
and adulteration
of goods,

Divorce of whole-
sale and retail
prices.

charge for his trouble. But what is bad is that even when the wholesale prices go down the retail ones do not follow. And this difference is greater if the retail market is far away from the centre of production, as there the difference is not so easily and generally known, although in course of time it reaches there as well. This difficulty is being decreased by the railway and the telegraph, still it cannot be wholly eliminated. One way of getting rid of it is the formation of consumer's societies, who purchase direct from wholesale producers and sell to the members. But this system has not made sufficient headway yet. At present the middlemen is essential, with all his evils, for the proper functioning of exchange. But his activities can be regulated by penalising untruthful advertisement and adulteration of goods, and his power of charging a high price can be decreased by the development of communications.

Middlemen may be divided into several classes. The chief of these are the merchants. They may be travelling merchants like hawkers and pedlers or local merchants like shopkeepers. Historically it is said that the travelling merchant is the earlier form, for in old days the chief function was to take the goods to different places where the producers themselves could not go. But later even local merchants developed to take away the work of selling altogether from the hands of producers. And now when goods can easily be sent to distant places without the merchants themselves going, the producers send only agents to study conditions of the market elsewhere and to find out the kinds of goods required there, which are then supplied to the local merchants.

Another distinction is that of retail sellers or ordinary shopkeepers or stallholders and of wholesale dealers. The latter act as distributors. They purchase goods

Retail and whole-
sale dealers.

wholesale from the producers and distribute them to retail merchants, themselves charging only a small margin of profit as their turn over is greater than that of the retail seller. The retail seller, therefore, charges a larger margin as his turn over is not rapid, and his capital is small, so a larger margin is necessary to provide sufficient funds for his up-keep.

Other classes of middlemen are brokers and transporters. The former negotiate transactions between different persons. They keep themselves informed of the conditions of the market, and know exactly where a particular thing is to be purchased and who are likely to purchase it. They save the time and trouble of both parties and facilitate a speedy completion of a transaction, for this they charge a commission. The transporters carry things from place to place and are essential to the modern machinery of exchange. They have made the development of merchants and markets possible. They not only increase the utilities of the goods they carry, but they also increase production by enabling goods to move to different places. They help localisation of industries in different places and bring raw materials to them and take away their goods to places where they are wanted. In all these ways they help production. Transportation lines are the arteries through which moves the blood of exchange carrying nutrition everywhere and distributing it to the different parts of the body social for consumption by numerous cells and for the building up of the tissues of the social body.

The various kinds of transports may be grouped under water and land transport lines. A third air transport gives a promise of a speedy development but it is not yet well advanced to be of practical importance, water transport by way of boats and steamers, is

Brokers and
transporters.

Water and land
transport.

cheaper than the land transport, because in the former case the cost of maintaining the line is nil. Rivers and seas are provided by nature. In their case the expenses incurred are only those of working the lines. On the other, in the case of land transport like railways, motor transport and other vehicles, roads, high ways and railroads have to be built and maintained. But at the same time these later are more convenient and speedy than the former. Consequently boat traffic on rivers and canals has been very greatly decreased. Moreover, boat traffic is possible only along waterways, while the forms of land transport can be used more extensively. At present water transport consists chiefly of the sea-routes, as the railways and other land transport can have little utility in that sphere.

CHAPTER XXIII.

BANKS.

In early days banks or individual bankers performed the function of receiving money, precious metals or ornaments for safe custody. They used to charge a certain percentage for performing this function. Early banks only deposit. Banks and money changers. The private individual had not such facilities of guarding his valuables and so he entrusted this work to the bankers on the payment of a small charge. These entries in favour of the depositor could be changed at his request in favour of a third person. In this way trade bills, made for goods supplied, were sometimes paid at the banker's, and gradually "hundies" also developed. For funds so deposited for safe custody the banker issued receipts, and the depositor often delivered this receipt to his creditor who took the payment from the banker. As the business increased some bankers, probably, to save trouble kept several kinds of receipts in various amounts ready signed and gave them away as depositors came. The depositors used them to pay their debts and the high credit of the banker made them circulate further, and thus the system of bank notes was discovered. Another work that was often undertaken by the bankers was the exchange of foreign coins into the domestic ones, so that traders from abroad may be able to purchase in the country. This they were enabled to do by reason of their greater resources and avenues of information about the currencies of the world which an ordinary person could not have.

Thus the early banks and bankers already contained the elements which have so much developed in modern banking. The ancient banker charged a percentage for safe custody because he had not such possibilities for lending money to others as there are now, and so he used to keep the money intact, except, of course, when it was required by the government and he had to lend a part of it. But in modern days the industrial development has increased the new uses for money, and so the bank makes a profit by lending part of the money of the depositors. This enables the bank to forego the charge for safe custody, which used to be made before. It rather tries to pay interest on the deposits so that a larger amount of deposits may come to it and it may have large funds for lending to others. It lends at a greater interest than what it pays to the depositor, and thus makes its profits. So now the principal business of a bank is borrowing and lending in various ways. The usual way of borrowing is by way of deposits. Generally there are three kinds of deposits. The first is called current accounts. The theory of current account is that the amount bank keeps the amount deposited always ready, and the depositor can withdraw all or any part of the amount at any time. A cheque book is issued to him and whenever he wants money he writes a cheque to the bank. If he writes a cheque for an amount larger than the one shown to his credit in the books of the bank than the bank may dishonour the cheque or may allow the person to make the over-draft. The latter method is allowable in very exceptional cases when the credit of the person is very high, the bank has had large dealings with him in the past, and the

Modern
development.

The main
principle.

Borrowing by
way of deposits.

Current account.

Over-draft.

amount of the over-draft is not large. The system, however, is liable to abuse, and many bank failures in India have been due to unscrupulous managers and directors allowing their friends to over draw. As in theory the bank keeps the whole amount of the current accounts in cash, it does not pay any interest on that money as it is not thought to be earning any profits from it or if it does allow interest it is at a very small rate as compared with the other kinds of accounts. In practice it is not necessary to keep the whole in cash for all the depositors are not likely to call in at the same time, even the cheques issued upon the bank change hands by endorsement, when the credit of the bank is high, and the bank does not require to pay while the cheque is in such circulation. So the bank does get a margin of funds which are not likely to be demanded at once, and these it lends at short notice and for short periods so that they may soon be realised when required. The interest it gets on such short period loans is not large and so it does not pay any interest to the depositor, and the interest received goes to pay its own expenses and profits.

Next come the savings bank accounts. In, this case the bank does pay interests but at a small rate, because in this case also the depositor has a right of withdrawing any part of the amount standing to his credit once in a week. As he cannot withdraw more than once a week, the bank is more secure in meeting the withdrawals in these accounts than it was in current accounts, for in these another week only can bring another demand. So it can lend part of these funds at a better rate and for slightly longer periods than is the case with current accounts. But here also the bank can not lend this money for long periods and so cannot earn large profits.

Therefore, the interest on savings bank deposits is smaller than that on fixed deposits, and generally a bank receives not more than a fixed amount in the savings bank account of one person. If he wants to deposit more he should do so in the fixed deposits accounts.

Fixed deposits are graded according to the time of the notice required to withdraw money. A depositor should give a six months, one year, two year notice of his intention to withdraw. This gives ample time to the bank to realise its own funds by calling in the loans or by selling the securities. The longer the time the easier it is for the bank to do so, and so the bank can lend these funds in remunerative long term loans. As its profits are great, it pays a large interest on such deposits and the rate of interest increases with the time of the notice.

Another way of providing itself with funds is that of rediscounting. A bank purchases bills of exchange or hundis from traders by deducting from the face value its own discount and paying rest of the money to the trader. This discount is made up of the interest for the period for which the bill or hundi is to run before falling due and his commission for the work he does, the risks he undertakes and the convenience he provides. In case of necessity the bank may take these bills to a central or reserve bank and get them rediscounted. The reserve bank will deduct its interest and commission and pay the rest to the bank and thus the bank will get funds. But this method of providing funds is used for getting cash to pay demands made upon the bank when the bank reserve is not sufficient for the purpose. It is not used for getting funds only to lend to others, because the bill of exchange

itself is a loan advanced to the trader. Rediscounting is rather the realisation of that loan before it falls due so as to meet some exceptional demands upon the bank.

In the case of cheques so long as the cheques remain in circulation the bank is in the same position as if it had got a new deposit. The cheque should have been presented as soon as made and then the bank would have had to cash it, but it is not presented to the bank immediately and so the bank retains the deposit for a longer period of time. But the cheques do not add directly to the deposits they rather extend the period of their detention with the bank though the effect is practically the same as if a new deposit were made. Similar is the case, where a bank has also the right to issue notes. It pays notes, where it should have paid cash and the notes are taken because the credit of the bank is great and everybody believes that the bank will be able to redeem its notes. The effect of the note is that part of the cash represented by the note is invested in interest paying loans or other securities, and in case of demand for cashing cheques the bank is not obliged to call in the loan or sell the securities. It can pay in those notes. So long as the note remains in circulation the bank is enabled to keep its funds invested, but as the notes come they have to be cashed like cheques. For this purpose part of the money is kept in cash as a reserve.

Now a days a bank is generally a joint stock company. When a number of persons join together and subscribe an amount of capital to use it for starting some industry, trade, transportline or banking, it is called a joint stock company. The amount subscribed is its capital. The subscribers are shareholders and their shares are called shares or stock of the company. A joint stock company is a limited liability

Notes and
cheques.

Capital, Joint
stock company.

Limited and unlimited liability company. company when the liability of its shareholders is limited to their shares in the capital of the company. If the company fails, the creditors of the company cannot ask the shareholders to pay any thing more than the value of the shares subscribed by them. An unlimited liability company is that in which the liability of each shareholders is unlimited, and any shareholder may be made to pay the whole of the liabilities of the company by its creditors. Generally the companies are limited liability companies. As the shareholders live at distant places, so they cannot supervise the affairs of the company efficiently, and therefore do not saddle themselves with unlimited liability. A bank now-a-days is such a limited liability joint stock company. Its capital forms the initial fund with which it starts work even before deposits are attracted. Capital is never paid back to the shareholders unless the company stops works and its assets are greater than its liabilities, then the assets are after paying off the debts of the company, paid to the shareholders proportionately to their holdings of shares. Otherwise the shareholder only gets his dividend periodically. The capital forms a fund which may be lent for any length of time. It is a kind of permanent deposit. It is also a security for the depositors, because the depositors know that the bank has got another fund invested besides their deposits and so in times of difficulty the margin supplied by those funds will compensate for any loss which the bank may incur in its investments of the deposits.

The funds that a bank gets in the above ways it lends to others, and the difference between the interest it pays and the

Limited and
unlimited
liability
company.

Capital.

A kind of
permanent
deposit is also a
security for
depositors.

Lending.

interest it receives constitutes the bank's profit. But it cannot lend the whole amount, for if it does, it will not be able to pay when the depositors or noteholders want their money back, and if it refuses to pay then nobody will entrust his funds to it any more and its business will be stopped and the profits of the shareholders will be lost. Therefore a bank always keeps ready to pay such demands. And for this purpose it keeps a reserve fund. Experience shows that all the depositors and noteholders do not want their money back at the same time and generally 33 to 40 per cent of the liabilities of the bank are enough to meet the demand. The rest of the funds may be invested. But sometimes it happens that there is a panic in the money market as there is when some large firm or bank fails. In such a case there is created a general distrust amongst the investors, and everybody wants to have his money back and there is a general run on the banks. Or it may happen in the case of a special bank when somebody sets a harmful rumour afloat about it to injure its credit. In such cases the securities of a bank must be sold at once and its loans called in, but such action is likely to cause greater panic. The situation is saved, if some other bank is able to lend money to the bank in need so that it may tide over its difficulty. This is the function performed by a reserve or central bank. The bank in difficulty places its bills and securities in which its funds are invested in the possession of the central bank and obtains an advance on them. Thus a panicky sale of securities is prevented and the situation is saved. If the reserve bank has a right to issue notes then it may not require cash to pay the advance and may pay it in the form of notes. As the credit of the reserve bank is likely to be high

and its notes are likely to be legal tender they will be accepted in payment by the creditors of the bank in difficulty, and the trouble will subside.

The rest of the funds, deducting the reserve fund, of a bank are available for being
Loans. employed in interest paying investments. Part of these funds will be used in providing loans to approved borrowers, part will be invested in good securities, and part will be used in the purchase of commercial paper. The proportion between these uses depends upon the character of the bank. An ordinary bank is likely to give short period loans or purchase commercial papers so as to be able to realise its funds at a moment's notice. It will also have only first class securities which are readily saleable at all times in the market. An industrial bank will issue large loans to approved new industries and take their bonds although the industry is a new one and its bonds are not so easily saleable. A land bank will give loans on the security of land, which other banks will not. Apart from these special considerations generally banks issue loans to persons whom they know very well, on whose credit they can rely, and in most cases they also take as collateral security some good stock of a well established company or a government. They do not give loans on land as land is not a readily saleable security or if sold in haste, it is not likely to fetch a good price and so is not a good security for this purpose. They try to keep the loans for as short periods as they can and always prefer those payable on demand, if they are not paid on demand, they sell the collateral security and recoup themselves. They charge an interest, which is about 4 to 5 % higher than the interest they themselves pay on deposits.

Besides secured loans the banks also invest their redundant funds in first class securities. Purchase of securities. In the case of semi-state banks like the Imperial Bank in India the securities are fixed by law or charter so that the bank may not indulge in the purchase of new stock and lay itself open to troubles. This method of investment, although it also does release the funds of the bank for the use of the money market, does not help trade as directly as the methods of loans and discounting of commercial paper does, for there the money is lent directly to those who are engaged in trade and are in need of funds. But it has the advantage of being a kind of last resource upon which the bank may fall back, for while the loans may not chance to be realisable suddenly, commercial paper may not be maturing or falling due, they can always sell these securities, or get advances upon their basis from the central bank. The banks also purchase and keep custody of such securities for their clients on a nominal charge if any. Their advantage is, that client is also likely to keep an account with them, and they get a commission on the transaction of purchase and sale which they effect on his behalf.

One of the most important ways of investing funds is the discounting of commercial paper such as bills of exchange or hundis. Purchase of commercial paper. These relate to trade transactions. The bank takes them easily if they are supported by the endorsement of one, two or three, whatever may be its custom, persons whose credit is high so that the bank has besides the drawer these endorsers also to realise its funds from, in case of its being dishonoured by the drawee. The bank pays the amount of the bill or hundi less its discount to the drawer or the person presenting the bill for

discounting. In this way the bank is able to earn interest on its funds and also provides funds to the drawer who can now effect new transactions with their help. But these bills are not realisable before they fall due, and so in cases of a crisis a bank takes them to the central bank and gets them rediscounted to provide itself with funds. This business is largely

done by exchange banks. The exchange banks also engage in arbitrage business which is, as has been explained, a purchase in one market and a sale in another of the same securities or of foreign currency, when there happens to be a difference in the price of the securities, the exchange rate

or the rate of interest prevailing in the two markets. Besides these the banks perform many other kinds of monetary business for their clients. They receive valuables, goods, and securities for safe custody, they sell and purchase stocks and shares collect dividends, act as trustees and executors, as correspondents of other banks and issue letters of credit, transmit funds from one place to another, and do foreign exchange work.

From the above it is clear that the banks do not help themselves only by their transac-

Management
and provision
of credit.

tions, but they help trade by providing funds when the trade requires them.

Indeed the chief function of the bank is to draw money from places where it is lying idle

Provision of
notes and
cheques.

and make it available for trade and industry. Its effect is as if the total quantity of money were increased,

because the efficiency of the money already existing undoubtedly increases. The funds deposited with the bank are not only used in lending to others but the same funds may serve to effect many transactions and still may not be used. Thus

when a depositor draws a cheque upon the bank he completes one transaction upon the basis of those funds. This cheque passes through several hands completing several transactions before being presented to the bank. The sum represented by the cheque has done work of a value many times more than its cash currency value because everybody had a faith in the bank and the drawer, and on that faith used that cheque as money. When a bank is authorised to issue notes then part of the money represented by the note issue is kept as a reserve and the rest of it is invested in securities and so is made available to the money market. While the funds so released are helping trade, the notes issued on the basis of these funds are living their own course of life as money, and are effecting numerous transactions in passing from hand to hand. We find, therefore, that the system of banks makes the development of a huge structure of business based upon comparatively small funds possible by the exploitation of the credit of the bank, this credit being so great by reason of the huge funds being always in its power to meet the demands of those who want money. This development of credit is a unique fact of modern monetary organisation.

Credit increases with the development of trade and industry because such development finds new uses for capital and permits the expansion of credit. Public security and confidence in the future outlook is essential for its expansion, and a sound currency system is the basis upon which the structure is raised. London has been the world's money market of the world because of the sound gold currency of England and in war time when there was the paper pound in England, the free gold market of New York

attracted much of the work.

It should have become clear from the above discussion that credit performs very valuable functions. It replaces expensive gold, which could not have been found

in such large amounts, by paper, it accomodates the borrower by permitting him to pay at a future time. By a careful management of credit a crisis may be averted and prices stabilised. It increases the efficiency of money by enabling it to do a very large amount of work, uses up idle capital by drawing deposit and helps trade and industry.

But at the same time credit is also very sensitive.

The slightest rumour may affect it and may cause a run upon the bank.

If the bank has got sufficient funds the people may be reassured, otherwise a monetary crisis occurs. If the bank closes, a general panic results and other banks are as well affected. This may happen without an ugly rumour, when funds are going out of the country on account of trade demand. At such times credit shrinks because every one wants money and so cashes his credit instruments. The central bank, which makes it its business to manage credit, raises its rate of interest and so of discount. It charges more on the loans demanded from it and takes a larger discount on bills. The general rate of interest for short period loans rises in response to it. Funds from outside come to the country to be invested so as to earn the increased rate of interest. The arbitrage workers from abroad purchase bills of exchange as more discount is to be gained thereby. The exporters also export more so as to have their funds invested in the goods realised and used in the market. Those who wanted to borrow from the banks refrain from doing so in the prevailing

high rate. Thus the funds flow in and again the shrinking credit begins to expand.

Credit suffers from certain defects peculiar to itself. As the provision of credit instruments takes only printing notes to expand it, it is liable to abuse when an unwieldly amount of credit may be based upon a very slender basis of currency and a crash may come disorganising the whole industrial life. This is helped by the tendency to waste of funds due to an easy provision of capital. Those who are not really capable, can now undertake a business as they can find funds easily. Moreover by providing large funds it enables large scale production with a tendency to monopoly.

But we should remember that credit itself is not capital. Credit is faith, and this faith in the solvency of a bank enables the same amount of money capital to do the work of a much larger amount of capital: it also draws out small savings and hoards in the form of deposit and makes that idle capital do some work. Thus credit acts as if capital were immensely increased but itself is not capital. Further what money or its substitute credit does is only to provide a means of commanding auxiliary capital. It itself does not take part in the production of a commodity. It facilitates the transfer of wealth from one who uses it as wealth to one who uses it as capital.

Moreover a bank provides a very safe means of transmitting funds from one place to another at a very cheap cost. The bank only charges its commission which is generally very much lower than the ordinary postal money order charges, and is safer than the ordinary postal insurance. The bank is able to do so because it has branches or correspondents at various places who

pay the bank's draft. The obligations between them are settled by periodical accounts in which claims against each other are balanced and only the excess is paid in money. The document issued by a bank upon its branch or correspondent at another place is called a "draft." Like a bill of exchange it may be a demand draft or may run for at a period before becoming payable. Besides this a bank also issues a "draft" letter of credit. When a draft is for a fixed sum to be paid in a lump sum a letter of credit authorises the bank's correspondent to give the holder credit up to the amount mentioned in the letter, and the bank undertakes responsibility for the funds so provided. The holder may or may not take the whole of that sum. He may not even take a part but he gets a credit balance to that amount available for his use.

The note issue of a country is managed either by a government or a bank. In the latter case it may be free or monopolistic. Note issue-free and monopolistic. It is free when every bank has a right to issue its own notes. It is monopolistic when the right is limited to one bank as it is at present in England and France where the Bank of England, or Bank of France alone can issue notes. Formerly the right used to be a free one but it proved to be liable to abuse. An unscrupulous banker would issue notes in excess of his resources and when the notes come for cashing in large numbers, he would close down inflicting a great injury on the holders as also on the money market. Even now many banks in the United States issue notes, but there they cannot manufacture their notes but they take their notes, either from the National Treasury depositing sufficient securities in exchange for them, or they take their notes from the Federal Reserve Bank. The

former is called the National Bank note system. Under that the notes are again marked with the seals of the issuing banks, and in case of the default of the bank, the treasury sells the securities deposited and redeems the notes. In the Federal Reserve system the bank which are members of the system take notes from the Federal Reserve Bank on depositing approved paper and then these notes are issued to the public as federal reserve notes.

Generally, therefore, the right to issue notes is limited to a central or reserve bank under strict conditions. The bank cannot issue them to any amount it likes. The amount is fixed, but if the trade demand is great then it can exceed this limit either by paying a certain tax on the increased issue, as in the case of Germany and the Federal Reserve Bank of America, or must take permission of the legislature, as in England. The latter is a cumbrous mode and has often broken down in practice, and the permission has had to be given in cases of emergency by the suspension of rules. The tax system is elastic and at the same time ensures that the new issue is not undertaken lightly, and the willingness to pay the tax shows that the trade demand is genuine. At such a time if notes are not issued then a monetary crisis might result from the stringency of the money market.

It has not been found necessary to limit the working of the cheque system in the same way. The cheque circulates only amongst those who have faith in the drawer or the endorser on the bank and so cannot commit much mischief. The cheques are issued only when money is wanted for trade and are limited by the credit allowed and so are not liable to overissue. Cheques are not legal tender and so their circulation is not universal but is restricted, and they are negotiable

Difference between a note and a cheque.

by endorsement except the bearer cheques which change hands by delivery. Notes on the other hand are issued by a government or under governmental regulation. They are for fixed amounts and are legal tender and so have an extensive circulation. They circulate from hand to hand merely by delivery. Such notes depend upon the credit and security of the government and are money which the cheques are not.

As a rule an issue of notes by a bank is less liable to overissue than it is when it is issued by a government. A government has got the power of the law behind it, while a bank is a private institution and is anxious about its credit. Even if a government offers to help a bank by making its notes a legal tender, the over-issue will injure the bank's credit and will stop its business. So a bank is likely to issue notes only in obedience to a trade demand, but this is only in case of well regulated banks, and not of unscrupulous ones. It is, therefore, better to entrust the note issue to a central bank than to manage it officially.

The advantages of the bank system, we have seen, are great. It enables a huge structure of credit to be built on a slender basis of cash. By thus increasing the efficiency of money manifold it helps in the increase of business. It provides funds when the money market is greatly in need of them. But for this provision the business would have come to a stop and there would have been a great set back to the progress of the country. It provides funds for effecting transactions with foreign countries and for building up new industries on easy terms: and makes all this possible to a much greater extent than it would have

Advantages
of a bank.

Credit help in
stringency
of money.

Industrial and
commercial
advance.

been the case if the metallic money alone were used. Just as efficient transport is a necessary condition of a modern industrial organisation, so is a banking system. Now industry and trade can not wait long for transmission from one place to another, nor can it wait for funds. It should have both at once, else the whole machinery is dislocated. And it is the banking system which supplies the basic need of ample funds.

Nearly all ordinary banks have a savings bank department in which they open savings bank accounts for their clients. Some Savings banks. banks are opened only for the purpose of inducing habits of saving in the public. In India there is a savings bank attached to the postal system, and the numerous post-offices make this convenience widely available to the public. Another form of bank instituted for inducing saving is the cooperative bank in which the members deposit their savings and then take loans on cheap terms. Generally, however, the savings bank work is done by the ordinary banks.

Those banks, which have branches and correspondents in various countries and deal chiefly in the foreign exchange business, are called exchange banks. They purchase and sell foreign exchange bills and do arbitrage work. They do not lock up their funds largely in any country but rather keep them as fluid as they can conveniently so that they may be able to do business where soever greater profit is to be earned, and for this purpose they have special facilities of information and action through their agents. Such banks are like the Hongkong and Shanghai Banking Corporation.

Industrial banks like the Tata Industrial Bank are started for helping industry. Such Industrial banks. banks make long term advances

to new industries which they consider to be promising. So they prefer fixed deposits more than savings bank or current account, and have a large share capital, so as to make money for long period-loans available. They generally nominate a director or directors on the boards of the companies they finance to see that the company is not mismanaged and their money is not endangered.

The Central or Reserve Bank in a country acts as the banker's bank. Generally every Reserve bank, member of the system, has a reserve deposited with it. Mutual claims of the member banks are settled by the transference from one bank's account to another bank's account in the books of the Reserve Bank of any amount that may be found to be payable after the cancellation of the claims against each other. Thus it enables huge transactions between banks possible on the basis of small funds just as the banks themselves do for private individuals. The deposits made by these the member banks with the Reserve Bank is not likely to be required for payments all at once and so the Reserve Bank also can keep a proportion as its own reserve and use the rest to help the money market. But generally such a bank does not compete with the ordinary banks in the usual bank business but invests its funds in gilt or first class securities and rediscounting commercial paper. Even then its funds become available to the money market and expand credit further. Another function, which the Reserve Banks perform, is the management of the whole credit system by manipulating the rate of discount as seen above, and of coming to the rescue of a bank in difficulties by providing it with funds by taking its securities or rediscounting its bills. It is the lord of the money market and for its own sake

governs it wisely. It coordinates the credit system and has become a necessary part of the modern monetary organisation.

Ordinary banks do not lend money on the security of land. For this purpose special land banks are formed. There are a few examples only of this kind in India as in Bengal, but in Germany this system is very well developed. It is formed in two ways. In one the landholders unite and start a bank on joint responsibility. The bank grants loans to the members in the form of bonds, each of which is of a small value. They bear about 4⁰/₀ interest. These bonds are sold to the public either by the borrower or by the bank itself. The purchaser is assured of the interest by all the resources of the bank as well as the special property mortgaged in the notes. The regular payment of interest is guaranteed and generally the bank also agrees to accept bonds for repayment when funds are available, or withdraws bonds by making drawings. The borrower pays to the bank a sum annually consisting of the interest for the period a commission for the bank and an annuity to extinguish the loan in a certain period of time. This annuity provides funds for making the drawings or for withdrawing the bonds.

Sometimes instead of the borrowers uniting capitalists form a company with a share capital, lend money to the landholder in the form of bonds for which the special property mortgaged as well as the resources of the company are responsible. In this case also the borrower pays an annuity as above. The difference between the interest paid by the company to the bondholders and the interest it gets from borrowers constitutes its profits.

People's banks are formed to provide capital to small traders or funds to poor people who cannot

People's banks. otherwise get them easily. Members purchase a limited number of shares and are then allowed to take a loan, but one must have already paid in his share-account at least 60% of the amount or it should be guaranteed by another member. A new member is accepted only if approved by other members. The bank receives deposits and pays interest on them, and may take loans from other banks. The whole of the assets of the bank as well as of the individual members are jointly responsible for the liabilities of the bank. The bank pays dividends from its profits. The main principles are those of cooperation and joint responsibility. Such banks should not be confused with those banks who adopt the name of Peoples' without being based on joint responsibility and cooperation. There are numerous such banks in Germany, Italy and elsewhere.

The principle of cooperation is that while a person individually may not have a great credit as his resources are limited, but if many persons are combined then their joint resources become valuable, and people can be induced to lend money on the strength of those joint resources. While Schulze Delitzsch applied this principle to small traders and producers in cities and produced the Peoples' Banks Raiffeisen applied the principle to agriculture. Societies of both kinds are found in India, and the advance in the agricultural cooperative credit societies is being effected at a rapid rate. The agricultural societies are specially useful in India as the Indian cultivator is heavily sunk in debt and the lesson of self-help and thrift which these societies teach is very valuable, besides the provision of capital at a cheap interest, and the liberation of cultivators from the power of the

money lender. The membership is local so that every member may be conversant with the affairs of the other members. Unreliable members are not admitted. People give up drinking, gambling and other wasteful habits for the sake of being admitted to the privileges of such societies. The members take loans but all are responsible for a loan taken by any of them to the society so that they take good care to get it repaid and to prevent waste on the part of the borrower. Because of their joint responsibility they are able to get funds from outsiders also. In India there are central district cooperative banks and then provincial banks to coordinate the activities of the primary societies, and provide them with additional funds. In the industrial sphere cooperative societies for handloom weaving and for dairy farming have been formed. They supply the capital by procuring it on the principle of joint responsibility. There are numerous kinds of such societies springing up in India. Labourers unite to offer contracts and eliminate the contractor. Societies for storing the agricultural produce so as to fetch a greater price at a favourable opportunity for supplying seeds to the agriculturists for providing modern agricultural machinery to members are in existence. But these are not banks. Cooperative credit societies agricultural or industrial and the central and provincial cooperative banks are the ones, which properly engage themselves in the work of banking and supplying the credit and money necessary to the small borrower or producer.

With the increase of its business a bank opens branches at other places with a central head office. In America, however, this is prohibited and banks in separate localities are independent units. Branch banking has all the advantages of large-scale busi-

Branch banks
and indepen-
dent banks.

ness. Its risks are minimised by its business becoming diversified. Its profits are great and its utility and service to the community is also great. The independent local bank depends upon local business industry. But at the same time it has the advantages of efficient local supervision and local knowledge and prevents the concentration of huge capital in the hands of a few large banks.

CHAPTER XXIV.

OTHER INSTITUTIONS.

The most important of the other institutions are clearing houses, exchanges and transport companies. Clearing houses are associations formed by a number of banks. The representatives of the member banks meet at a central place. They sit round a row of tables. Each member draws up a list of the claims of his bank against the others and delivers them at the tables of those banks and similarly receives the claims of the other banks upon his own table. Then a balance is struck and it is found ultimately how much has to be paid by each and to whom. Thus claims are cancelled mutually like the working of foreign exchange. If A has to pay B and B has to pay C and C has to pay A then the whole thing can be settled without passing any money, if the claims are equal. Otherwise the net cash will have to pass. When this final balance is struck and is certified by the central clearing house authorities, it is either paid in cash or better still a transfer in the accounts of the banks maintained at a central or reserve bank is made. It has already been explained that the advantage of this system are immense as it permits of an immense expansion of credit and business.

Another institution is the stock exchange. Here dealers or jobbers in various securities stand at their tables and whosoever wants to purchase them consults a stock-broker. The

Jobbers and brokers. broker goes into the dealer in the securities wanted. The dealer gives two prices, one at which he will purchase from the broker if he has to sell and another the price at which he will sell the security. The selling price is naturally higher than the purchasing price, but the difference is very slight sometimes even of $1/8$ p. c. ; if the security is of a large issue, and is always available and can be purchased again to effect another turn over of the dealer. A board nearby shows the rate at which the transactions have already been done in it during the day. But the rate may change with the increase in the demand even during the day. Securities which have international market are often purchased by foreign merchants if their price is favourable to them at that stock exchange. These transactions are then completed on the settlement day when the seller delivers his securities and the purchaser makes the payment.

The real investor completes his transaction in the ordinary way. But there are also speculators who buy and sell on the expectation of higher or lower prices. Thus

Bear. one who sells in the expectation of a lower price prevailing before a day of the settlement when he shall be able to purchase at lower cost than his sale price is called a bear. When one

Bull. purchases securities in the hope of their increasing in prices and so his reaping a profit by selling them later on, he is called a bull. Such speculation may often be carried on without any actual passing of securities. If the price does not fall then the bear may have to purchase at a higher price to meet his settlement and all that he will have to do will be to pay the difference in the price at which he sold and at which he purchased.

The mutual claims will be cancelled on the clearing house system. Where, of course, there is a bona-fide transaction for investment the securities have to be delivered.

The stock exchange provides an institution where the stock of various companies can be dealt with and so capital can be found for the industries. Everybody knows that if he wants his money to be taken out of his stock holdings he can go to the stock exchange for selling them. Because if he can thus get his money back whenever he wants it, he is more willing to buy stock of new companies than he would have been, if there had been no such market for his holdings. It enables the man with extra capital to invest it in the industries ; and the man who wants his capital back to use it in some-other way can disengage his funds. It also creates a class of underwriters who agree to take up a new issue of a company and undertake to manage the sale of its shares, on payment of a commission. This helps in establishing new industries. So far than the stock exchange helps industry and production. But the speculation indulged in is not socially useful, for it does not represent any new productive process but effects a more transfer of money or the general purchasing power from one pocket to another. The energy and time lost in the work is socially useless. It may be even socially harmful. Speculation sometimes causes huge failures and then it may create a crisis. It is true that some speculation is present in all transactions. Even the hard-working producer indulges in a slight speculation about the price he is likely to get for his product. Such speculation is a

Advantages
and disadvan-
tages.

Evils of
speculation.

necessary element of human life and production. It is true that miscalculation in such speculation also may produce disastrous results; that is an evil that has to be put up with, otherwise alleconomic activities will be stopped. But speculation for the sake of mere speculation stands on a different footing altogether. It is not connected with any productive process. It is a sheer waste of energy with not even a pretence of production and as such is socially harmful.

Similar is the case with the exchanges for agricultural, mineral and other produce, as wheat exchange, cotton exchange, or Produce and finished goods exchange, or one for finished goods. There are also both bonafide trade transactions and speculative dealings. The former are useful as they provide a market for wholesale dealings so that large transactions are expeditiously made, while the latter are as harmful as the speculation in stocks and shares is. In the case of these exchanges sometimes different times are fixed for bonafide transactions and speculative ones. Such speculation is a kind of gambling and is equally injurious. In Calcutta speculative exchange is called Phatka.

We have seen the immense importance of the development of communications and transportation in the development of markets, and in the increase of production. These transport lines may be on land or sea. Transport companies. Railways, motor cars, and ordinary carriages and carts are examples of land transportation, while ships sail the seas. In India even now the bullock carts are in extensive use and bring the agricultural proceeds from the interior of the country to the central town markets, and then the produce is moved by the railways to distant parts of the country or to the ports. India has not got any large fleet of ocean going ships but

possesses river steamers and some are employed on the coasting traffic. Proposals for an Indian merchantile marine are, however, being discussed and companies also have begun to be started for the purpose, like the Scindia Steam Navigation Co.

As a general rule sea transport or river transport is cheaper than land transport. The old method of river boats required little expense when the boats went down the stream laden with the produce of the Himalayan mountains, but their dragging up the stream was a very tedious work. On land the roads require to be built, while the sea and the rivers provide natural lines of communications.

BOOK IV.

CHAPTER XXV.

DISTRIBUTION—RENT.

Satisfaction of wants is the aim and object of economic activities. This satisfaction is possible only when something capable of satisfying wants has been produced. Whether there would be further subdivision of economic activities depends upon the development of the industrial organisation. Where man produces all what he needs for himself, there are no departments of exchange and distribution in his activities. His production leads direct to the satisfaction of wants or consumption of goods produced. But when he begins to use things made by others then begins exchange, for he pays for the goods of others by giving them what he himself produces. This goes on developing till the stage where the craftsman works at home, is his own master, sells his produce and from the sale proceeds supports himself and his family. This may be observed even now in India in carpenters, blacksmiths and such other craftsmen. In this condition exchange intervenes between production and satisfaction. But when the sales of the craftsman increase so much that he is unable to produce all the things required for himself and he engages others to help him, then from the sale proceeds he must give a part to his helpers, and so they must first be distributed between him and those assistants. When the share of each

is determined, he may use it for the satisfaction of his wants. This introduces another work, a new department, in his economic activities, and that is called "distribution". In fact even before the craftsman engaged workers distribution existed, because although he did not engage anybody in his particular work of production, still he purchased raw material. The carpenter purchased wood and wooden planks. Somebody must have cut the wood and sawn the planks. In paying for them the carpenter acts as if he had engaged the woodcutter and the timber sawer and paid them from the proceeds of the sale of his commodities. But then shares were determined by the exchange of their commodities without presenting the peculiar problems of modern "distribution". We thus see that distribution like

Due to social
study of
economic
activities.

exchange is the effect of man acting or producing in society and not in isolation. In society he takes help from other persons and exchanges his own produce with that of other producers, and so exchange and distribution are as necessary a part of Economics as production and consumption are, for Economics studies man's economic activities in society.

Although distribution is a necessary step before satisfaction of wants, but its importance was not so great in the artisan stage as to create practical problems. The difference of producers and labourers was not so pronounced as it is now. There were masters and servants, but the servants were treated very much like family members. In the ancient Manu's Hindu Code of Law, for example, there is the rule that the master of the house should first give food to the servant and then take himself. But with the development of the modern industrial organisation distribu-

tion has become a practical problem. There is now a difference not only of a master and a servant, but the various classes, who share in distribution, have become quite distinct. There is the capitalist who does nothing except lending his money. There

The problem of distribution. is the entrepreneur who organises huge quantities of labour and capital and directs what is to be produced and how it should be done. Then there are the labourers who do the actual work with the help of capital and machine provided. The land underneath the factory belongs to the landlord. The classes have become so differentiated from each other that it has become necessary to determine on what principles their remuneration is to be determined and now the utility of their services is to be calculated. The necessity of such an enquiry becomes apparent when we remember the huge sums which the entrepreneur realises as the sale proceeds of his goods, and the different shares also are so large that the making of a slight variation in the amount of individual income will make a great difference to the whole sum. Further the conflict of class interests has increased, because the classes have become so defined. One class justifies its own earnings and attacks those of others as unjustified. For all these reasons "distribution" has become a practical problem in the modern organisation of society which it was not in the artisan stage.

In production we saw that the factors of production are land, labour, capital, and enterprise. All these four claim shares in the total income from production. The share of land is called rent, of labour wages, of capital interest, and of enterprise is called profits. After studying the principles of these shares we will study the share of the state, taxation, and the different

systems of distribution proposed and practised, and that will finish our study of distribution.

RENT.

Although the beginnings of the theory of rent are found even earlier, Ricardo was the first economist who put it into a regular form. He assumed that the cost of production applied over all plots of land is equal. But different plots vary in their powers of fertility, and so some lands produce more than the others for the same cost of production. This extra production or surplus he called the economic rent of the land yielding it. A difference in the yield, not only from various lands but even in the case of the different doses of labour and capital applied to the same land, is possible on account of the law of diminishing returns. As population increases the demand for food brings poorer lands into cultivation, and forces us to apply fresh doses of labour and capital to those lands which are already in cultivation, thus bringing the law of diminishing returns into operation. The result is that the earlier doses of labour and capital and the more fertile lands yield a differential surplus over the later doses and the less fertile plots. This surplus is the rent paid by the tenant to the landlord.

Ricardo did not recognise scarcity rents. For him rent was a differential surplus between a no-rent land or no-rent dose and the surplus yielding land and doses. But it is possible that the demand for agricultural produce may be so great that the demand price may be above the cost of production from the least fertile land. In that case the scarcity of land will enable a surplus to be realised even from that poor land. Therefore, in the modern form rent is the surplus over the cost of production yielded by land. Moreover, a difference

between the contract rent paid by the tenant and economic rent or the surplus is recognised. Economic rent itself is considered to be a genus including rent-like surpluses in other incomes. In spite of all these variations the substance of the theory remains. Let us now examine this problem in detail.

When the produce of different lands goes into the market then the fact, whether the whole supply will find purchasers or not, depends upon the demand for that produce. If the demand is so great that it cannot be satisfied without the absorption of the whole supply then the sellers will have an easy time. The cost of production in different fields is different. Some lands are fertile, and some are not so yielding. If the whole supply is taken then the price must be such as can pay the cost of production of that part of the produce which has been produced at the greatest cost. If the price is not sufficiently great for this purpose then that part of the produce will not be sold and the demand will not be satisfied and so the price will rise. When a quantity of produce is sold at a certain price, the price must be such as to compensate the most costly portion of that produce, else it will not be sold. The result will be that the producers of those portions of the produce, which were produced at a smaller cost, will reap a surplus. This is called economic rent.

Take an example. There are two fields of A and

	B. A produces wheat at a cost of
Two fields	Rs. 4/- per maund and B produces at
compared,	Rs. 6/- per maund. A produces eighty
one yields a	maunds of wheat and B only fifty.
surplus.	

But the demand is for 150 maunds and it being a necessary of life the purchasers are willing to pay any price. They will have to pay at

least Rs 6 - per maund else they will not get the wheat of B. At this price B will be just compensated but A will get a surplus over his cost. B is said

Margin of
cultivation.

to produce at the margin of cultivation, because if he cultivates more intensively then the cost of the extra produce will be greater than Rs 6/- per maund and so it will not be profitable to him. A produced at Rs 4 - per maund but sells at Rs. 6/- so he will get a surplus of Rs 2 - per maund on his eighty maunds. In other words he will get rupees 160 more than his cost. If the price had been Rs 5 p. maund, then his surplus

Extensive
form of the
theory.

would have been Rs 80/- only. And if the price were higher, his surplus also would have been greater. Where two separate plots of land are thus compared to show the rise of economic rent, it is said to be the "extensive form" of the theory of rent.

In the above illustration B's land will be the marginal or no-rent land for it yields no rent or surplus to B, and is on the margin when the production from it is just profitable as it is compensated by the price; the production from it will be called the marginal production. Such a no-rent land may not exist in a country and yet the other lands in it may yield rent. This happens when the market for the produce is a world market and the lands of other countries also enter the competition, so that the no-rent land with which comparison is made exists in some other country. Or in an old country all lands may be cultivated intensively so that there the comparison is between the different doses of labour and capital applied. In that case all these lands may yield a surplus.

The same thing can happen in the case of the different instalments of wheat produced in the

Different instalments of production in the same field may give a surplus.

same field because agricultural production follows the law of diminishing returns. The earlier instalments will be produced at a smaller cost. This can be found out

by calculating the extra cost at which an additional amount of wheat can be raised. Suppose A is producing 80 maunds at Rs. 4/- p. maund. If he spends another fifty rupees in deep ploughing, irrigating and good seed, and gets 10 maunds more then the cost of these will be at Rs. 5/- p. maund. The demand in the market is for 150 maunds and so far the supply is only 140 maunds. B producing the other 50 maunds. So he raises a third additional instalment, but this is done at Rs. 6/- p. m. The market price is Rs. 6 and at that price 150 maunds can be purchased. So A's 100 maunds also will be taken up at Rs. 6 p. m. Then A will just get his costs on the last 10 maunds which will be his marginal production, or production effected at the margin, where it is just profitable to do, the dose of labour and capital applied at this point being called the marginal or no-rent dose : but on the earlier ones he will get a surplus of Rs. 160 + Rs. 10, the total surplus being Rs. 170. If the price falls down to Rs. 5/- he will give up producing the last 10 maunds and his surplus will become Rs. 80/- only. This surplus is called economic rent. This form of the theory in which economic rent is seen

The intensive form of the theory.

to arise in the same land on account of intensive cultivation is called the "intensive form of the theory of rent." We may define economic

rent as that surplus, which a producer from a land gets over the cost of production of his produce, because of the price in the market

being high enough to absorb similar goods produced at a higher cost. It should be remembered that the various doses

This producer's surplus is economic rent. of labour and capital applied to the same land are successive only

in theory. In actual practice there is no such distinct succession. but to understand the rise of the surplus clearly they are shown above as successive, but so far as the surplus is concerned, however, the effect is the same as if the doses were successively applied.

The reasons why a producer gets this surplus are

Causes of rent. two : (1) that the cost of production of the different parts of the produce are different (2) that the demand price is

high enough to pay for that part of the produce, which is produced at the highest cost. The cost of production of agricultural producer depends upon

Why costs are different. several factors (1) the fertility of the soil, (2) the situation of the land, (3) the intensity of cultivation, (4) and

the methods of production. If a land is more fertile naturally the cost of producing from it will be less than the cost of producing from less fertile lands. Situation also may increase or decrease the cost of placing the produce in the market. Where the land

Cost of transport. effect of situation. is near a market, the cost of transportation will be very little, but if it is in the interior then the extra cost of bringing it to the market will be added

to its other costs. As land is fixed in situation it cannot be brought nearer the market and the produce has to be brought to the market place. The land near the market, therefore, enjoys a natural advantage which reduces the cost of its produce and gives a

Rent of situation. surplus. A surplus due to advantageous situation may very well be called

the rent of situation. Fertility is due to another natural advantage of possessing certain minerals in a certain proportion in the soil. Thirdly land is limited in area and so when the demand increases a larger amount of produce has to be raised from the same area of land. The intensity of cultivation increases and the law of diminishing returns begins

to act. So the cost of the subsequent instalments is greater than that of the earlier ones. Of course much will depend on the methods of cultivation. By using proper machinery and other improvements the yield from land can be increased to a great extent but sooner or later the returns begin to decrease. These improved methods may be available at one place and may not be so at another, or the conditions at one place may be such as may make them difficult to be adopted there. Where there is a great subdivision of land costly machinery for ploughing and other purposes cannot be employed. A cultivator is fixed to his land and is governed by the conditions of the place where the land is situated. We find, therefore, that the natural advantages of a particular

land and its peculiarities of being fixed in situation and limited in area make the cost of different portions of agricultural produce different, and the producers of the parts produced at a smaller cost reap a surplus over those

producers who have produced at a higher cost. The increase of population and the progress of civilisation increase the demand for agricultural produce and so tend to raise

rent. The latter increases the variety of our wants so that a great part of our productive energy is

used up in satisfying them, and is partly withdrawn from agricultural production, and even the demand of the existing population appears to be more intense than before on account of the decreased production. On the other hand improved methods of cultivation and transport tend to level up the advantages of different plots of land by opening up the interior and making even bad lands productive. So far as this effect follows the rents are lowered. As new lands come into cultivation on account of increased demand and the margin of cultivation is lowered, the rents increase. The lowering of the margin increases the cost and so also the surplus of the fertile lands.

In the above account the surplus varied with the demand price. The demand price for agricultural produce increases with the increase of population, as this produce supplies the mainstay of human life. With the increase of the demand price the rent or surplus over the cost of production will increase. It is the price which determines the rent. Rent does not enter the cost of production : it is the surplus over the cost of production realised on account of the market conditions. If the demand is great the rent will be great. If the demand is small the price will fall and the rent will decrease. Economic rent, therefore, does not enter price but is a result of high prices.

For this reason it is called the unearned increment. The owner of the land does not do any thing and does not incur any cost to get this surplus. He gets it because the demand happens to be so great as to fix the price at a figure sufficiently high to compensate for the higher cost of other producers. He gets this unearned increment, because he happens

Caused by and so belongs to society. to possess land with certain natural advantages which reduce the cost of producing from it: in reality the unearned increment is due to the progress of society and the increase of population. So properly speaking it belongs to the society which has caused it to appear, and the landlord is unjustly enjoying it. He should be made to deliver this surplus to society to whom it rightly belongs. The landholder is already allowed to possess land, a limited natural gift, which should have been the possession of the whole community, but to allow him to take away the increase in the profits caused by social development is an additional injustice. New lines of transport are built, new markets are established and the lands near them acquire an advantage of situation in comparison with the lands in the interior: they can put their produce in the market at a small cost. But it was not the owners of those lands who built those communications or founded those markets and so they should not be allowed to reap the extra advantage.

Several methods are proposed to effect this. One is that land be owned by the state as the representative of the community, and then it be leased out periodically to private cultivators so that the profits of cultivation or the economic rent will come to the state in the form of rent paid by the cultivator. This is called nationalisation of land. In India the theory is that the state is the owner of land, but in certain parts called the zamindari tracts, the state has recognized the landholders as owners, subject to an amount paid to the government, called land revenue. In some places the

revenue is fixed for all time or is permanently settled, while in others it increases with the rent of land, and for this purpose a revision of the settlement takes place periodically. Under these zamindars are the various classes of tenants. In the rayyatwari tracts the state deals directly with the cultivator and has the right of reversion if the "rayyat" or the cultivator abandons the land or dies without leaving an heir. It may be said that in rayyatwari tracts nationalisation of land is realised as nearly as is practically possible. The rayyats are a kind of lease-holders of the government, and yield to the state part of the increase of economic rent by having their rental increased after certain periods.

Another famous proposal is that of the single tax.

Single tax
system.

It is said that if a single tax is imposed absorbing the whole of the economic rent then the state will not need to impose a second tax, for the proceeds from the economic rent will meet all its needs, and the increasing proceeds will also provide for the increase in the expenditure of the state. India may be said to have realised this to a great extent. Here the land revenue is the largest single tax and forms a very large part of the Government revenue, but it does not suffice for all state expenditure. The land revenue generally takes about 40 to 50% of the rentals received by the landlord from the tenants. The merit of the proposal is claimed to be that the state does not really tax the earnings of anybody but takes only what should have belonged to it, and that is so large that its receipt rather enables the state to do away with many other taxes and so to benefit the whole community. As there will be no tax on the real earnings of the people, production will be stimulated, or the people will earn more, as now they will have no fear of their earnings

being decreased by the tax. The increase in production will increase the prosperity of the people. Where the whole economic rent is not intended to be appropriated by this tax, but only that part of it is taken, which is unearned increment due to the general social advance and improvements it is technically called a "betterment tax."

A third method is to make a re-distribution of land periodically between the different members of the community so that all persons may have an equal advantage by possessing different lands at different times. This was done in old village communities, but it is not possible to do so now when the extent of the country enclosed within the boundaries of a nation is vast, when the organisation of society has become very, complex, and numerous persons follow professions other than agriculture, and cannot take advantage of such redistribution; and then it will not be a method of securing the economic rent for the community as a whole.

But there are great objections against these proposals to appropriate economic rent to the society. The first is that if the gain is to be appropriated then there should be a counter-obligation upon the state to compensate when there is a loss. The loss may be due to a fall in prices on account of good crops at certain places. In such a case the producer, who cultivated at the margin of cultivation, will suffer a loss. He produced because the great demand led him to expect a high price. For this loss he should be compensated. If the possession of natural advantages gives economic rent and the state appropriates it, then the state

should also compensate when owing to a failure of rains crops are not good or floods destroy the standing crops, for both are "undeserved (or unearned) decrement". If the state assessed lands it would have had to bear these losses. But no state will be prepared to compensate, although it will be ready to appropriate the surplus by imposing a tax. All that it may do is to excuse the tax and that also rarely. This is one of the great injustices of a land tax like the Indian land revenue.

Moreover the face of earth has been changed by man.

<p>Difficult to separate earned from unearned increment.</p>	<p>Forests have been cleared, wastes have been irrigated and numerous improvements have been made in all lands. So far as the return is due to these improvements it is not unearned, but as well earned as any other. And this process of improvement continues. It is true that there must be some return due to social development as well as the original properties of land also, but how to calculate exactly how much is economic rent and how much has been fairly earned? The excess over previous years can not be taken as such, because part of this excess may be due to man's working in the interval. It may be said, however, that if exact determination is not possible then an approximate calculation will have to be accepted.</p>
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<p>Land now an invested capital.</p>	<p>But it should be remembered that land in the old countries is now practically an invested capital, and its income is a return on that capital. When land was first taken in possession there may or may not have been unearned increment but for a long time past land has been passing hands by capitalisation on the basis of the rent received. Suppose a</p>
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landlord receives rupees one hundred yearly as rent, then the capital value of his land would be rupees two thousands if the prevailing rate of interest is 5%.

Capitalisation. This is arrived at by calculating the principal on which Rs. 100/- would be the interest at the rate of 5% p. a. This process of calculation is called capitalisation. It is true that

Only increase rent may have increased since the transfer. Then only those lands can be taxed of which the rent has so

increased, and there also with the counter obligation to compensate for loss. In this form

Single tax will the single tax is shorn of many of its not then be so attractions. And so far as nationalisation is concerned it can be justified

only if the landlords are repaid their capital, for they were led to believe by the past organisation of society that their right will be respected, and were induced to invest on such expectation. If their rights are now abrogated then they must be compensated for the loss they sustain on account of being so misled by the society.

Compensation of capital would require a huge sum

For nationalisation huge sum necessary to compensate. which few governments would be able to find. The policy of a government owning the whole land is possible in new countries only, and even there

the governments are leasing land on very long or permanent leases, because governmental management of such industries requiring personal supervision and care cannot be very efficient; and to induce a tenant to invest capital to cultivate intensively and increase the productivity of the land a long tenure is desirable. In India the government does not engage in the business of agriculture, nor does it lease land periodically although in theory it is the ultimate owner.

Unearned increment present in every income. The greatest objection, however, is that there is an element of unearned increment in every kind of income. then why should land alone be taxed or nationalised. In wages one labourer is more efficient than another because he has better natural gifts, he is stronger and more resourceful and so has an advantage over a weak person. So far as these natural qualities increase his wages, the increase is unearned due purely to natural accidents. As we shall see the labourer tries to determine his wages by the margin of toil or the labour of the last hour during which he is just induced to work, and gets a surplus over other periods of labour. The efficient man will get the same wages with less toil because of his efficiency and so earns a kind of rent. This may be called personal rent as it is due to the possession of personal qualities which contribute to efficiency. Further the progress of society, the opening of communications may make labour at a central town more paying than in the interior. For example wages in Bombay, Calcutta and Cawnpore will be higher than the villages. A labourer who happens to be in these places enjoys an advantage which the village labourer has not, and this advantage is not due to any action on the part of the labourer but is due to the industrial advance of society. This advantage is just like the one enjoyed by a plot of land near a newly opened market or line of communication. Should labour then be nationalised or a single tax be imposed to absorb the excess in wages. Similar is the case with interest and profits. The accident of being present or carrying on business at a particular

" Unearned increment in wages.

In interest and profits.

place may make the rate of interest or profit earned different. Greater natural organising ability, accidents of birth at a particular place or in a particular family, and of the enjoyment of business influence may give a surplus rent in profits. It may happen that a capitalist lives in a place where the demand for capital is great, he reaps an advantage over his distant rival. Though he also can send his capital there to earn the high rate of interest, yet he cannot take advantage of it so fully, as it is more costly for him to invest at such a distance : the management of the loan will be more difficult than it is in the case of a capitalist present on the spot. The man on the spot will, therefore, have a special accidental advantage. Sometimes it happens that a person is prepared to pay a higher rate of interest, if the transaction is kept a secret. Then the capitalist, who happens to be in the confidence of the borrower, will reap an accidental surplus. An entrepreneur living near about the sources of his raw materials is likely to be at an advantage in comparison with one who lives far away. The producers of a resourceful country are rich in comparison with those of poor countries. Increasing industrialisation of society creates new wants and new industries, and those who live in such countries are able to do better business than the producers of a backward country. Opening of communications will make an industry situated near about more profitable than those in the interior, and there will be an element of unearned increment in the profits as the price will be determined by the most costly part of the supply taken up by the demand. Those producing at a smaller cost will get an advantage in the nature of rent.

If the unearned income of land is to be taxed, it

should be taxed in all these cases otherwise one class of the people, and that also probaly the poorest, and the most industrious class of cultivators is unjust. A proposal for eliminating the landlord and giving the

A scheme to make the cultivator the owner. cultivator the rights of ownership may be very useful as it will give the cultivator greater interest in his work and will save him from being squeezed

by the landlord. This may be arranged by the landlord being compensated by a special issue of land credit bonds carrying a fixed interest equal to the rental of the land at the time and guaranteed by the government. The cultivators will be required to pay the usual rental plus an annuity towards the redemption of these bonds, which they will be able to do by increasing their production when their production will be appropriated by themselves. When the debt is extinguished the land will become the cultivator's. The landlord will now become a capitalist and as this increase of capital will be distributed over a large number of years it will be profitably invested without disturbing the money market, while in the meantime he will be receiving his usual rental or interest as if his capital were already invested.

But this is not nationalisation.

But it should be remembered that this scheme is not one for nationalisation. It is only for the improvement of the land tenure.

We have been considering economic rent as occurring in agricultural land only, but it occurs in all kinds of land production. If capital is sunk in land so as to acquire the properties of land, *i. e.*, fixed in situation and limited in quantity, then such capital also is governed by the same laws as those of land. Buildings become part

Economic rent occurs in mines, fisheries, and buildings also.

of land and bear rent as shall be seen below. Nearly all agricultural land has a great deal of capital sunk in it. It is not now land pure and simple. But the capital so sunk cannot be differentiated and on account of becoming fixed in situation gives a differential advantage according to the situation of land. It occurs in mines, and in buildings. Mines and fisheries vary in their productive powers and are fixed in situation, nor can they be artificially multiplied, and so their return depends more or less on the conditions of the market as in the case of land. The advantageously situated mines and fisheries will, therefore, reap a surplus or a rent of situation. Similar will be the case with building sites. Sites near the market place are more valuable than in another place. Even where several stories are built in the same building the upper stories do not give as good a return as the ground floor, and this return becomes smaller as the stories go higher, although the cost of building the higher stories is as

great, nay even greater than that of the lower ones. There is a diminishing return in this intensive building like that of the intensive cultivation. However, royalty in case of minerals is not all rent. It is mainly "Dead rent." a share of the produce which is taken away from the store in the earth.

Besides this share there is also an element of rent in it. Where the rent is separated from the share of the produce it is often called "dead rent."

In practice rent is obtained by contract between the landlord and the tenant. This is Hire for land or contractual rent by contract or convention or hire for land. The landlord owns the land, and if he does not work it himself but lends it to another, he asks for part of the profits to be paid to himself as a return for this

permission and part of the profits may be kept by the tenant himself. These profits include the rent which the land is expected to yield and the interest on any capital invested in its improvements besides the return for the risks of the business. Risks in the case of agriculture are such as those of the rains failing, or the world price of the particular produce falling on account of a heavy produce in another country or any other such cause.

The same theory of value which applied to the determination of prices applies to the determination of the values of the factors of production. Contract rent is the price paid for the use of land and the theory of demand and supply is applicable here also. The demand side is represented by the tenants seeking land and the supply side is represented by the landlords willing to lease out land. Like the diminishing utility of a commodity there is diminishing utility of cultivation. For the first plot of land a tenant will be prepared to pay a high contract rent so that very little of the surplus or economic rent remains to him, because the utility of the first plot is very great to him. He may have no other means of making his living. But with the increasing units of lands offered to him the utility of cultivation will decrease as the difficulty of managing increasing areas of land will increase progressively. Therefore, the contract rent that he will be prepared to pay will decrease as the area of land taken by him increases till he is not prepared to take any more land. On the other hand if the landlord himself cultivates his land he will have to incur some trouble and expense or that he will have to undergo some disutility. There will

be a certain area which the landlord can easily manage himself. There will also be an area beyond which it will be a burden to him. This excess he will lease out for any rent as he can not cultivate it himself. But if the tenant wants more land the landlord will demand increasing rent for successive areas to compensate him for the loss of his own cultivation, till he comes to the last plot, which he will not lease out unless the whole economic rent is paid by the tenant. A prospect of engaging in another occupation may also make a landlord willing to lease out his lands cheaply. Thus while the rent demanded by the landlord will increase with the increase of the area demanded, the rent paid by the tenant for the additional areas will decrease till the two equate. At this point will be determined the actual rate of contract rent.

Equation of demand and supply.	Where there are many landlords and tenants each will have his own estimate of the utility and the disutility and at every rate of contract rent there will be a certain area which is offered for
lease and which is offered to be taken. Supply schedules and demand schedules may be framed as in the case of prices. The area available for lease will increase with a rise of contract rent and decrease with a fall. Opposite will be the affect on the tenants seeking land, and the rate of contract	
The point of equilibrium.	rent in the market of land will be determined at that point where the largest area of land can be leased out.

This point will be some where within the economic rent. The economic rent is a standing surplus because the stock of land cannot be increased and so the prices of agricultural produce can not be brought down by the competition of the newly created land.

As land can not be created, there is no cost of production to influence the supply side. The supply is, therefore, determined by the part of economic rent which the tenant is willing to pay. And this surplus will be divided between the landlord and the tenant as shown above.

Contract rent may be realised even if the land be yielding no economic rent, but just compensates for the trouble of cultivation. A hard pressed cultivator may offer the landlord a part of his earnings of labour applied to cultivation of that land for the permission to cultivate it. In such a case the land will have a contract rent but no economic rent. Generally, however, such lands will not be taken by a tenant and will be cultivated by the owner himself for the tenant cannot expect much to gain from such a land unless the demand for his produce increases so as to make even that land profitable.

The contract rent nominally does enter the cost of production. The cultivator calculating the cost of his produce calculates also the rent, he has to pay to the landlord, any increase or decrease in the profit falling on his own share.

If the market conditions become such as not to give him enough return at least to pay the contract rent he will give up the land, but if he can get enough to pay this rent but nothing for himself then also he may keep the land in the hope of better results in the future. Contract rent, therefore, makes a part of his prime costs, and if he does not get them he may suffer a great loss and may even become indebted. But it does not determine price. It is a part of the economic rent which is a result of the price

being high. So although it may formally enter the cost but as the surplus is likely to be even more than this, it does not affect the price, except where there be a monopoly of the supply and the price is raised artificially to make the consumers pay. In the case of a world supply it is rarely so. The market for land is generally a local market as only people attached to the locality will try to take the land. And such people are likely to know all about the yielding capacities of the lands of their neighbourhood. Therefore although the tenants may not know the actual economic rent of the land they propose to take as they have no knowledge of the actual accounts, but they can generally estimate the likely rent from the situation of the land and the quality of the soil.

The land taken by a tenant may be held on various terms. In Europe under the metayer system the landlord supplies all the capital including building, cattle and even farm implements while the tenant supplies his labour. The landlord has to keep an eye on the use which the tenant makes of his capital and for this trouble he charges something in the rent which thus includes an element of earnings of management. The rent is made up of half the share of the produce. While this division has the advantage of saving the tenant from the obligation of rent in case of failure of crops, it has a disadvantage in that it decreases the production, for the tenant will not produce when he begins to get a return less than double the amount required to compensate him; for half of the return will have to be given to the landlord. In the English system the landlord provides only the building and the permanent improvements and so does not require to look after his capital. The

Systems of
land tenure-
Metayer
system.

The English
system.

rent is taken in money. Such a system enables a farmer to develop production, but it at the same time makes it necessary for him to possess his own capital and he bears the loss of bad seasons as he gains in good ones. In India both systems of Indian system. "batai" or division of the crops and Batai and money rent. of money rents are found. The cultivator supplies his own capital.

The question of fixity of tenure is very important in India because if the cultivator makes his own improvements he must stay for a sufficiently long time to reap their advantage. This is secured in India by the grant by contract or the acquisition under the provisions of law, of the rights, of occupancy for the tenants and his heirs, and by grant of long leases. Under a recent law in the United Provinces all tenants

*Occupancy and statutory tenants.

have become statutory tenants and have a right to hold land for life and their heirs will remain in it for another five years. But the most productive system is that of peasant proprietorship for there the cultivator has a direct interest in his work. The magic of property makes him more resourceful and self-respecting.

Peasant proprietorship.

In India the state is considered to be the ultimate owner of all land and takes a part of rent in the form of land revenue.

Ryotwari

When the tenants take the land directly from the state it is called Ryotwari settlement. This is the system generally prevalent in Central and Southern India. In the North is found the Zamindari system under

Zamindari—Permanent and temporary settlement.

which Zamindar or landlord has full powers of disposal over land subject to a land revenue and he leases out land to the tenants, and pays the

revenue from part of the rents he himself receives. If the land revenue is revised every 25 or 30 years, then it is called temporary settlement. But in some parts of U. P., Madras and in Bengal it has been permanently fixed and is called the permanent settlement. The temporary settlement has the merit of securing to the state a share in the increase of the rent from land.

The justification of contractual rent is the principle of private property the same as is its justification. Private property. the case with interest. If the principle of private property is accepted then it cannot be limited to any particular kind of wealth. And every owner becomes entitled to ask for a return for the permission to use his land.

Private property has been both defended and attacked, but it can scarcely be doubted that the idea is of natural growth. Evolution of private property. We find it existing even in the case of animals. They also defend their possessions and claim a sole right to that they have against all comers. They sometimes even store wealth. Nearly all have their nests, holes or dens, which they consider their exclusive property. The small industrious ant is said to store wealth for emergency. This shows that the idea of private property was not invented by any selfish and tyrannical property owners, but is a development of animal instincts in man. Of course in the case of man its sphere widens and it extends to many forms of wealth. The ingenuity of man multiplies these forms. At some time in the history of man private property was probably limited to things possessed, as is the case with animals, except for certain kinds of wealth as the caves or huts and

his stone or metal hunting implements and weapons of war. Then the idea became extended from animals

Domestication of animals. killed to animals living and domesticated and used for milk or as beasts of burden. Gradually as agriculture was

developed small parties began to settle and cultivate lands. Stationary communities became organised. In the beginning these also were changing their

Agricultural stage. habitation, but later they began to become fixed. At first probably the land used to be distributed by the

chief and then periodically redistributed. With the increase in the complexity of social organisation and the difficulty of redistribution large areas of land forming a state, the custom fell into disuse and the present right of property began to become established.

The reason why the injustice of private property in land appears to be greater than in its injustice. the case of other things is, that land is limited in quantity and cannot be

increased to satisfy those who want to have it, and so it appears to be tyrannical that a few persons should have a prescriptive right over land for ever to the exclusion of all others. It is a natural gift and should be available to all. The very fact of its being limited shows that it should not be monopolised by particular individuals. It has been explained, however, that to deprive the landlords of their rights would require them to be compensated, for they acted upon the implied assurance of the social organisation and so purchased land. Moreover, if the appropriation of land has done this

Its justification. harm that it has excluded others from its enjoyment, it has also done a great service to humanity. Firstly the idea of property has been a great incentive to progress and production.

Only when one is assured that the fruits of his labour will be at his absolute disposal will he work whole-heartedly. And absolute disposal includes the right to gift it or to leave it to one's descendents. The hunting savage would hunt just sufficiently to supply the wants of himself and his family but a civilized worker looks to the future interests of his descendents. Indeed this future provision for the family is probably the cause of a great deal of creative work done in the world. Without this principle of private property the world would not have been what it is. Even those who criticise it, have become able to do so on account of the general progress of society at the root of which stands this principle. And if private property is accepted in the case of other kinds of wealth it cannot be denied

in that of land. Indeed private property in land has contributed its own special share to the service of humanity. It is settling on land, its cultivation and ownership that gives a start to civilization. Settlement on land freed man from the ever-existing anxiety of moving and enabled him to store. It gave him leisure to think of other things. It developed the home associations, and the social life and has made the present day civilization possible. Take away this right of property in land and life of man will again become unhinged. He will be fixed to no particular place or clime, his affections will have no local centre, his spirit of patriotism will have little to cherish, the whole thing will have a different appearance. With all its evils there is at least a certain stability and security of life due to the recognition of this right. There have been many schemes tried to eliminate this right. There is the communistic

principle of distribution which requires every thing to be owned in common. Societies have been established as an experiment, but they have failed and have not been able to uproot private property. Anarchism denounces it from housetops but has got nothing better to offer as a constructive proposal. The latest Bolshevism proceeded to destroy it and ended in its recognition. So long as human society remains property will remain. The right may be limited by measures to ensure some of its advantages to society by way of death duties and taxes but the right will remain. The necessity of limitation, indeed, has always been recognised, not as a denial of the right of property, but only for a better organisation of society so as to secure to every one the fullest possible enjoyment of his property. Thus there is the famous principle of law that every one should enjoy his property so as not to interfere in the legitimate enjoyment of others of their own property. Legitimate enjoyment is of the kind which is open to all and does not put another to hardship. Thus a man must not commit a nuisance even in his own property if it endangers the health of the neighbours. These limitations, therefore, are a development of the right rather than a restriction.

Economic rent is similar to the surplus obtained in the short period prices. When the demand for a commodity rises and the existing sources of supply are insufficient to satisfy it, then they reap an extra surplus over the cost of production of the commodity on account of the high price, till new sources of supply come into being and bring down the price again by competition; and as this takes time so a kind of surplus is reaped by the existing producers on account of the limitation of the supply. It is similar to that from land as the

rent from land is also due to the limitation of its supply. There is this difference, however, that in the case of land the limitation is permanent and so the surplus remains even in long periods. If the rents rise no new lands can be created, like factories, which may give an extra produce and may bring down the prices to the cost of production by competition again. This short period surplus in ordinary prices is technically called Quasi-rent.

CHAPTER XXVI.

WAGES.

The next important factor of production is labour and the return to its work is called wages. This term is technically applied to the remuneration of a hired labour. In the case of the liberal professions the services are paid for with a "fee" as those of a doctor or a lawyer. The question of the determination of wages has become very important since the introduction of the wage system, and indeed the labour capital conflict has made it one of the most absorbing questions of the day. Wages expressed in terms of money are money wages, and when they are paid in the form of grain or other commodities, which are directly used for the satisfaction of human wants then they are called wages in kind. Even now in many Indian villages the cultivators pay their labourers and the village menials customary quantities of grain and not money wages. Money is required only to purchase commodities capable of directly satisfying our wants. So in reality what one wants in his wages is a certain amount of those commodities, whatever the amount of money paid to him may be. For him money wages represent only the nominal wages. The real wages are the commodities that can be purchased with that money. As the value of money varies, real wages may be widely different at two points in time although the nominal wages may be the same. In calculating

the real wages other matters besides the commodity value of money have to be considered. If a labourer is receiving certain advantages, then they are also to be included in real wages. Commodities purchased. He might have a free house, or free fuel or light. Or the employer might have arranged for a shop near the labour barracks whence the labourers may get necessities at cheap wholesale prices. This will give them those goods at a cheaper rate than the retail market rate and the real value of their money wages will be increased. This system sometimes leads to abuse also when the employer does not supply good commodities but clears off his own remaining old stock, and forces the labourers to purchase at his shop. But if the labourers are left free to purchase anywhere and good and fresh things are stocked in the shop it is really a great convenience. Besides cheap prices it supplies the necessities to the labourers at their doors.

The nominal wages received have to be distributed over the period which elapses between one payment and another. Regularity of employment. If there is no regularity of employment this period will be uncertain and the money wages also will be determined by his total earnings being divided by a period of average length in which both times of heavy work and perfect idleness are included. In that case his wages may be found to be very much less than their nominal value. If the labourer does not get full work in the year then to support him during unemployment, the wages of this intermittent work will have to be large or the labourer will suffer. Further there are certain occupations in which the duration of life is not so great as in others. In such cases the labourer Duration of life. earns in total less than those working

in other occupations. and to bring the average total figure to the same level he should get more wages per period of time than the labourers in other occupations. Sometimes persons accept work on rather low wages if they find that there are possibilities of extra earnings in the work.

Extra earnings. Such is the case with the court "chapparis" in India and with many others.

Another form of extra earning is the possibility of employment of the other members of his family. If he finds that his son and wife also can find convenient work with himself than he may accept smaller wages as this advantage increases the purchasing power of the whole family. All such factors enter in increasing the real value of wages. Then what may be nominally high wages may really be

low when compared with the work turned out by the labourers and may not compare quite favourably with smaller wages obtained for less work.

Another important difference is between time wages and piece wages. When wages are paid according to the period of work they are called time wages. Time

wages are regular and certain. Where the quantity of work can not be easily measured in units or where delicate work with costly machinery is done, time wages are proper. Because if piece wages are paid the work will be hurriedly and carelessly done. Time wages, however, provide no inducement for sufficient work. When wages are paid according to the amount

of work done they are called piece wages. An efficient labourer should get more time wages than an inefficient one, but it often happens that no such measurement is made in the case of the general body of

labourers. It is in fact very difficult to find out when a large number of workers are employed, and when machinery has made the conditions of work such that even a person of average strength may handle them. In such cases time wages are rather injurious to the efficient worker as he gets less than he can produce. But if the wages are paid according to the pieces of work completed, they tend to vary with efficiency, because an efficient worker will produce a greater amount of work than an inefficient one will do in the same period of time. Piece wages by making the labour more productive than before increase the productivity of capital also, as it is now used to the best advantage by labour. It also makes it easier to calculate the value of the product per unit. On the other hand the work is done in a hurry and efficient supervision is necessary to ensure good work. Extra earning tempts the labourers to work hard even at the cost of their health.

But whether they be piece wages or time wages, the problem remains, how are wages to be determined? Several theories are advanced to explain the principles on which the wages of the workers are calculated. One such is the "wages fund" theory. It states that at any period of time there is a certain amount of capital which is seeking employment in production, and of this a certain proportion will be paid to labour in wages. Thus at any given time there is a fixed amount of money which can be utilised in paying wages and will be distributed on the number of labourers. If the number is large, the labourers will by their own competition decrease the rate of wages and the effect will be the same as if the capital were

distributed over a large number of labourers. Similarly if the number is small the wages will increase as if the capital were distributed over a small number

only. Wages can increase only in two ways, either by the increase of the capital or wages fund or a decrease in the number of labourers. If wages

are increased in any industry without either of these causes being present then it will mean the withdrawal of capital from other industries resulting in a decrease of the demand for labour and so again leading to a fall of wages. If wages in a profession are low there will be additional capital available, which will increase the demand for labour and will raise wages. Rise in one profession will attract labourers from other professions, thus ultimately equalising wages. There will be a general rate determined by the wages fund and the labourers available. This theory is not accepted now-a-days. There is no doubt of a certain element of truth in it. It is a fact that wages are paid before the product of the labourer's work is sold in the market and its value is realised. The wages are advanced by the capitalist or the entrepreneur in the meantime. Such an advance will naturally depend upon the resources of the employer. If he has not sufficient funds, he will employ a small number of workers and will curtail his production. It is also true that a certain amount of capital is seeking employment in production at a given time, and the extent of production will be in accordance with this amount. The extent of production will also determine the labourers required and the wages will be influenced by the available resources which will form the demand for labour. But

Its defects. it is quite incorrect to say that there is any fixed fund to be divided amongst

the whole number of the workers. Indeed an employer will not employ more nor less labourers than he actually requires. If the theory means that the fund used in paying wages is the wages-fund and it is divided into the labourers working and the rate of wages is determined by dividing the fund with the number of labourers then it is a mere truism and does not explain why the rate is what it is; and in this form

No ratio to
the total
number of
labourers.

also it will be true only for particular industries. If it means that the wages are divided amongst all labourers seeking work then it is manifestly wrong.

Many labourers may remain unemployed. It cannot, therefore, be said that a fixed fund would be divided on the total number of labourers seeking work.

Increased by
combination.

Further if the wage-fund be fixed, it would be impossible to increase or decrease wages, but we often find in

practice that wages are increased by combined action on the part of the labourers. Then

Vary according
to efficiency.

it is a well known fact that wages vary according to efficiency. Even

when a particular number of labourers is being employed, the fund available will not be distributed amongst them equally, but the more efficient will get more than the less efficient ones. Wages depend upon the demand for labour. This demand is derived from the demand for the product of that labour, but

Demand for
labour—but
no fixed fund.

there is no fixed fund to pay for wages. The wages may increase, and this increase may partly be distributed over the other constituents of the joint

demand, such as raw materials, land, capital, or may lead to an increase in price of the product. In reality the general conditions of the labour market determine the value of the labour or wages, as they deter-

mine the value of commodities.

Another theory is described as the "iron or brazen law of wages." It states that the wages are always equal to the bare cost of living, because if the wages are higher than this, the competition between labourers, whose numbers are so large and who possess no reserve, will bring them down to the bare minimum. High wages will lead to increased birth rate and an increase of labourers bringing down the wages. Lower wages will mean less sustenance and fewer children than before. The resulting decrease in the number of labourers will increase the wages again. Actually the constant increase of population, as malthusian theory indicates, will always keep wages at the minimum. There is an element of truth in this theory

Its truth. also. It is perfectly plain that the cost of living has a great influence in determining wages, specially when the prevailing standard of life and not the bare cost of living is taken into account. This is true that this cost will tend to be limited to the barest minimum under the system of free competition, for the labourer is at the mercy of the capitalist, as he has no reserve. Not only the cost of living but also the cost of producing a labourer to replace him, affects his wages. Where the parents spend a large amount of money and care over the education of the boy, it is natural that when he becomes a man he should be able to earn more than others, for his efficiency is increased by his education, and so the cost of producing him may be said to have determined his wages. When it is determined not by the bare level of subsistence but by the usual standard of comfort it is called a living wage.

Living wage. but by the usual standard of comfort it is called a living wage. But it is correct only so far, as it em-

phasises the element of cost in wages just as the wages fund emphasised the element of demand : otherwise it is incorrect and is generally rejected. In fact wages are not so fixed as the theory will have us believe. An increase in production and so in demand for labourers may easily increase wages even though there has been no increase in the cost of living. Then there is the fact that wages can be increased by combined action. Labourers are not quite so much at the mercy of the capitalist now as they used to be. The very fact of the possibility of increase shows that the wages are not limited by the bare cost of living.

Indeed wages are not determined by the eating capacity of the labourer but by his efficiency as a producer. If it were not so an inefficient worker but huge eater would get more than an efficient skilful but lean and thin person. Even if we limit this doctrine by the standard of living it is not quite accurate, because wages do not follow the standard of living.

If they did, nothing could be happier, for all that would have been necessary would have been to increase the standard of living and the wages would have increased themselves. No labourer would want anything more, and there would remain no cause for the conflict of labour and capital. What happens is that wages increase and allow an advance in the standard of life and then that standard tends to keep the wages at the point reached. This is made clearer if we remember that wages in different professions are not the same although the standard of life is the same.

may be the same for workers engaged in two different occupations. Often wages even in the same profession are different in different places.

Further, on this principle the wages in slack seasons should not be small nor should there be unemployment.

In such cases the labourer does not get enough even for his bare cost of living. It shows how this theory attends to only one side of the problem and does not pay any attention to the demand side.

This theory says that in calculating the shares of the proceeds to be realised from the sale of his commodities the employer charges a fixed rate for the interest on the capital invested, a definite rent to be paid for the land used and the usual rate of profit for himself. What remains is taken by the labourer in wages. The labourer is, therefore, the residual claimant. Such a theory, if true, would be a good answer to those extreme socialists, who say that the surplus produce of the labourer is wholly appropriated by the employer, for in this case after allowing the fixed returns to the other factors of production all the remaining return would be taken by the labourer. Thus according to this theory, wages will vary with the productivity of labour, because from the sale proceeds--the result of the production--will remain to the labourer. This theory is good so far as it emphasises the influence of the productivity of labour in determining wages. Otherwise in reality this theory is quite against facts. Firstly the capitalist pays wages before he realises the sale proceeds, and not after it. He advances the fund paid in wages, and so in fact the amount of wages

Wages small in slack seasons.

Against facts.

is fixed before the product of labour is sold. Secondly after allowing for the wages the interest and the rent paid or to be paid whatever remains is taken by the employer as profits. He is the residual claimant. The profit may be large or small as the conditions of the market may be, and the employer undertakes the risk of this increase or decrease. He tries to adjust land, labour and capital in such a way in the process of production that the risk of loss may be decreased as much as possible and that the chance of gain be increased. And the risks that he takes of the success or failure of his plans are compensated by his profits. Therefore, labour is not the residual claimant. Even in the calculation of the cost of his produce before its sale in the market if the employer includes only the general rate of profits prevailing in the industry, he also calculates the wages at a fixed rate which he has already paid. In estimating the cost before production he will calculate the prevailing rate of profits, interest, rent, as also of wages. There is no additional residue for the labourer. If any thing does in fact remain it goes to the employer for his risks. Then there is

the same possibility of wage being increased by combined action. This would not have been so if the other factors were to take fixed shares and the labour the residue. In that case the shares of other factors would not have been decreased nor could the residue of labour have been increased.

For a proper understanding of the forces that determine wages we have to turn again to the marginal theory. The same theory of value is applicable to the determination of the exchange value of commodities in the department of exchange, and to the

Wages increased by combination.

The marginal theory-common theory of value.

determination of the exchange values of the factors of production in the department of distribution. The former is called price and the latter are technically termed contract rent, wages, interest and profits.

In the case of labour the demand is represented by the wages which an employer is prepared to pay. He wants a certain number of labourers for his work. If the number available is small he will be prepared to pay more, for the utility of the labourers to him is great, but if he has an abundant supply of labour then he will take a certain number of labourers and not more. The number will depend upon the productivity of the labourers. The productivity of a labourer will be compared not only with that of another labourer but even with capital which may be used to replace labour. Thus an entrepreneur will calculate not only whether it is profitable to engage a certain number of labourers but also whether it will not be even more profitable than this to use a machine instead of a certain amount of labour. But if the auxiliary capital used be the same the increase in the number of labourers employed will lead to a decrease in their productivity to the employer. If there is only a small number, the employer may appoint one labourer to the charge of two machines: but if he can have more, then he will place two labourers to three machines, so that the machines may be attended to and worked continuously, and may not be stopped by the absence of one of them. If he can put one in charge of each, then evidently greater attention will be paid to the work, and production will be greater than before. Thus the productivity of the different instalments of labour will be different and that labourer will be the marginal labourer whose productivity is just enough to repay for his wages. The wages of

this labourer will determine the general rate; the producer will be realising a surplus over the employment of the other labourers. But he may or may not get

The producti-
vity of final
labourer.

such a marginal labourer, and so the rate of wages will be determined by the productivity of the final labourer that is available, just as the value of a commodity was determined by the final utility of the commodity. There will be many employers in different industries. Different employers will estimate marginal productivity differently. Thus there will be a demand schedule for labour.

Where even women and children are available as labour they become the marginal labourers and thereby lower the general rate of wages. Female labour is cheap as they do not spend much time or money in training and so are not so efficient. They can do only the easier work for which their supply may be large. Moreover they have no organisation of their own to secure high wages by collective bargaining for them.

On the supply side two factors enter into the calculation. One is the margin of toil and the other is the marginal cost of producing a labourer. It has been explained that labour tends to increase in unpleasantness with the lapse of time, and the labourer would be willing to work only as the remuneration compensates him for the disutility of toil, which goes on increasing. He comes to a point where the disutility of toil is just compensated by the remuneration obtained, and beyond which the disutility becomes greater than the expected wages. This is his margin of toil. He will try to have wages, equal to those which he gets for that period of time which is at the

Cheap female
labour.

Supply side--
margin of toil.

margin of toil. for all the other
 Labourer's periods as well, and will earn his own
 surplus. producer's or labourer's surplus over
 the earlier periods. If his work be for a short period
 only then the disutility should be small and the rate
 of wages should be lower, and so should be his
 labour-producer's surplus. But we have to remember
 that labour eats while it works, that it cannot work con-
 tinuously for a long time to compensate for its short
 period of work at another time, and so for the short
 period the rate will rather be higher to compensate the
 labourer for the irregularity of his employment. This
 margin of toil will be different for different labourers.

While the margin will effect the increase or de-
 crease of the rate of wages according
 Cost of living. to toil the basis of the rate will be
 found from the cost of living. The wages must be
 sufficient to enable the supply of the labour to be
 kept up, or they should pay the cost of living of the
 labourer who is already working including the cost
 of preparing another to take his place. Labour in-
 creases or decreases in a very long time like a genera-
 tion. In long periods of time the
 Marginal cost supply of labour depends upon the
 of training. margin of producing a labourer. If

the earnings of a profession decrease the parents will
 give up training their sons for those professions,
 and if they increase then a larger number of parents
 will train their sons for them. There will be a
 comparison between the costs of training and the
 expected earnings. They will be different in differ-
 ent professions. If the earnings are sufficient to pay
 for this training it will be given. Further the cost
 of training will be different also for different boys
 of various capacities, and the training of the worst
 boy must be compensated else he will not be trained.

and the supply will decrease. This will be the margin of training a labourer. The margin of producing a labourer will depend upon the cost of maintaining the family and the would-be labourer plus the cost of training. It will be different in the case of different families. Where it is so large as to be just compensated by the current wages, it is the marginal cost of producing a labourer. The parents will be earning rent on the training of the better boys.

Thus there will be a demand schedule of labour based on productivity and there will be a supply schedule based upon the margin of toil and the marginal cost of producing a labourer. Like prices the wages will be determined at the point where the largest number of labourers can find work. This will be the normal or general wage. Actually, however, there will be many other disturbing forces. The position of the labourer may be too weak to permit of a free contract. Then the mobility of labour from profession to profession or place to place is not quite so perfect as is assumed in the above theory. Nor is labour likely to be so well informed. Further this increase or decrease of the supply of labour does not depend upon the wages merely, some professions may be more attractive in other ways *e. g.* prestige and power. Some may require greater capacity and so supply for them may be small. The higher grades may restrict entry by requiring high qualifications. Moreover, the lower grades seldom have the foresight and vision to prepare their children for the higher grades and so they train them to work in the same grade. Labour is not attracted to those professions where the chances of success are

problematic and the ordinary labourer cannot take large risks of this kind. Then this adjustment of labour to demand takes a very long time, a generation. Even then it is not perfect. There may be miscalculations of future chances. And once a labourer is trained for a particular profession he cannot change it easily, but becomes fixed in it. Ordinarily, therefore, the wages of labour are determined by the existing supply of labour and the productivity of the final labourer available. In very long periods this point will move with the increase or decrease of newly trained labourers, while in short periods the intensity of demand in relation with the existing supply will be effective. But as the supply

of labourers is not very elastic the relative wages in different professions will vary and will be determined by the particular conditions of demand and supply in each. Another difference will be caused by the different efficiency of the different classes of labourer. In the same class also the wages will differ according to individual efficiency when they are paid according to the quantity of work done.

The rise of the wage system has led to class conflicts. Labour has become a kind of commodity for sale, and just as interest of the seller is to sell at the highest price and that of the purchaser to pay the lowest price, the employer tries to get as cheap labour as possible and the labourer to get as high wages as he can. Labour is not quite so mobile nor is the competition quite so free as to enable the labourer to obtain wages equal to the productivity. A labourer may be getting wages smaller than the productivity theory would warrant, and yet may remain in the industry, as he may not like to move

Class conflict
due to wage
system.

elsewhere, and the strong position of his employer may compel him to accept the low wages. In the case of commodities the seller is not personally effected, and if a commodity has to be sold at a price less than its cost the seller sells it and does not produce more but there is no further relation between him and the purchaser and so there is no great unpleasantness created. But the labourer must himself deliver his labour, and he is a conscious living being, so the scanty remuneration and hardwork creates an increasing unpleasantness in his mind which goes on increasing with the length of contact with the employer. It does not stop on the completion of the transaction as in the case of a commodity, and then at last the accumulating forces tend to burst forth in the form of a conflict.

Wages do not move with the prices automatically.

Wages do not move with prices easily. The capitalist tries to postpone the increase so long as he can. Moreover when once the wages are increased it is difficult to move them down. The increased wages accustom a labourer to a higher standard of living and if the wages are then decreased the labourer feels it as a hardship and tries to resist it. This has been the case in England as well as in India in the post war period when the abnormal war prices began to decline. Recently there was the great strike of textile worker in Bombay as the employers wanted to reduce the wages on account of the declining condition of the mill industry. Therefore the capitalist does not like to increase wages unless the advance in his industry is permanent.

This enrages labourers and they try to get their wages increased by refusing to work. If Strikes. this were done by one or two labourers it would not have affected the employer very much, but

as it is done by the whole body of labourers working under him the position becomes serious and he may have to yield. The employers also use a method of fighting to enforce a decrease in wages similar to the strikes. It is called a "lock out". The

Lock out. employer closes his works unless the workers be willing to work at lower wages than before. The labourers lose work and wages in a lock out, and though they try to resist they have sometimes to yield. If the position of the producer is really desperate and he finds it better not to produce at all than to produce at a loss the position of the labourers is weak, and they have to yield sooner or later for they cannot remain without work for a long time. This is what happened in the great coal strike of England. If the conditions of the industry are not bad then the employer may give in rather than lose his profits, but the action is so serious that no employer is likely to adopt this method when he stands to lose by his action. He will take to it only if his position becomes very difficult.

These class conflicts are harmful both socially and economically. They create an unpleasantness and a strained condition of feeling which is a danger to social peace. Revolution always looms in the background. At the same time they do a great economic harm to the nation as a whole. A strike generally occurs at the time when the conditions of industry are good, for then the labourers want a share of the increased national income. And at such a time a strike prevents the industry from taking advantage of the favourable conditions and so the national income is reduced. To heal this conflict and avoid its evil effects various methods are tried. One of them is the system of conciliation and arbitration.

Arbitration. Conciliation boards try to find out the causes of strikes and try to relieve the situation by bringing the parties together and helping in arriving at a decision. An arbitration board hears the case of both the employer and the labourer and then gives its decision in the dispute. This decision may be enforced as a legal process in countries where arbitration is compulsory by law as in New Zealand and Australia. Where it is not compulsory, as in England, the publicity at the proceedings exerts a moral influence on the parties. Other methods are for the amelioration of the condition of labour so as to improve its lot and decrease the causes of conflict as far as possible.

One way of doing it is to pay wages according to a scale sliding with prices. A better and more successful way is to adopt a scale sliding with the cost of living which is indicated by a reliable index number. But in this the real wages remain stationary. They are very useful if labour's right to get an increase in real wages also is reserved. Another way is the granting of bonuses in case of prosperous trade.

Bonuses. The bonuses are not permanent additions but are given only because of the better conditions. If those conditions change they may be stopped. This has the merit of avoiding the decrease of wages, a proposal which is likely to create difficulties. But this is only if the bonus is given for a short time. If it continues for a long time then it is likely to be treated as a part of wages, and the labourers becoming accustomed to spending it will resist its stoppage, for that will decrease their available funds for an expenditure which has become a habit with them. Thus in the Bombay strike of 1925 the stoppage of the bonus was one of the grievances. Sometimes bonus is given as a

Premium system. premium on good work, a standard of work is fixed and a bonus is given on extra work done, but the rate of the bonus decreases with the increase of extra work so that there may not be a great inducement to do hurried work.

Scientific management system. Another system of bonuses is the American "scientific management system." Workers for various works are selected by psychological tests. For every process a standard time is found by. Time study or a study of the time required to complete it. A standard way of doing it is fixed by eliminating the superfluous motions. This is called motion study. Then if a worker completes it earlier than the fixed time he is paid a bonus at a determined rate. But labourers consider these only as ways of getting more work done and so do not like them.

Legal minimum wage. Another method that has been tried in England is of fixing a minimum legal wage. Trade boards are established. They hold an enquiry and fix a wage which can be enforced by criminal law. This method helps the labourer in those industries in which he is not organised into trade unions. It advances their standard of living and impels a producer to devise better methods of production to compensate himself and protects him from those producers who exploited labour, and paying smaller wages produce cheaply.

Profit sharing. In profit sharing a share of the profits is given to the labourer also. It is better than bonus as it will be automatically stopped in bad years without any resistance and will increase in good years. It gives the labourer an interest in the business, attaches him to the work,

increases his productivity, and tends to produce a spirit of comradeship between the employer and the labourer. It also decreases the cost of superintendence. But in spite of its good results it is not generally liked, neither by the capitalists nor by the socialists. The spirit of conflict being abroad, the socialists argue that the labourer's profits are nothing but a small share of his own extra earnings, so that in reality the labourer is earning even more for the employer than before, while at the same time he is being deceived into accepting an arrangement as fair and just which does not give him his rights but robs even further. The labourer is kept pleased without any real gain and forgets his own interest, often profit sharing schemes are introduced by individual firms thus making collective bargaining by trade unions difficult. The other side argues, that if the labourers receive profits, they should also be responsible for part of the losses, which evidently is impossible ; and then profit sharing is a right contracted for the labour contract. It does not bear the mark of the capitalist's kindness as the bonuses do. At the same time firms which adopt it suffer. They have to meet a large wage bill and inefficient firms, which do not pay such bonuses, are able to compete with them. Such objections are more sentimental than weighty and the general improvement in the relation of labour and capital should give it a good chance. But so far the system has not made much headway.

In profit sharing labour gets no voice in the control of the industry. This is provided in labour copartnerships in which the labourers either become share holders, or nominate a "director" to represent them. Often, however, they appoint a committee,

which jointly with employer's representatives administer the profit-sharing funds. These committees often advise on other matters also, but have no directing or controlling powers.

Another system makes the labourers themselves the capitalists by combining bodies of Cooperative labourers into cooperative societies production. and their starting factories in which they themselves are the workers. Their joint responsibility can easily get them capital. The greatest difficulty in this case has been the question of supervision. The labourers themselves being the masters are not always very obedient and manageable; and the managers, who are also servants at the same time, find the work difficult. This is remedied by the society starting factories with hired labour, but in that case the old capitalist system remains and the society becomes merely a joint stock company hiring labourers and earning profits, and becomes a close reserve to which new members are not admitted. Moreover, even in this system the labourers do not recognise the value of the manager's intellectual labour and are not often prepared to pay him as he deserves, and so are not able to make good appointments. Even if they pay well, they can not secure the work of an entrepreneur from a paid manager. In the first place the qualities of leadership, imagination, quick decision and administrative capacity are found combined only in a small number of persons. Moreover, the personal responsibility with personal interest, which brings all the powers of the entrepreneur into play, is absent in the case of a paid manager. These defects may be partly removed by proper education. But at present cooperative production can be useful, more as a means of decreasing inequality of wealth by making it possible even for the petty

labourers to become capitalist producers, than as a way of reconciling labour and capital or of replacing the capitalistic system. The former purpose is better served by the system of joint stock companies even now. They also make it possible for a person with a small capital to become a part proprietor, and joint stock companies can undertake greater works than the cooperative producing societies can. But such societies can be useful in small production such as dairy farming and handloom weaving. In those two branches there are already societies in India, notably in the Punjab. Indeed the development of handloom weaving under the cooperative system as a cottage industry supplementary to agriculture may be very important for an agricultural country like India.

Another method of reconciliation is to make labour more pleasant, to provide various conveniences and advantages for labour. to the labourer to make him more contented. This is done by opening schools for his children, by providing sporting clubs and cinemas, reading rooms, tea shops for his recreation and refreshment, and systems of old age pensions, accident, illness, death and unemployment insurance, maternity benefits and the like to make him financially better off and to provide for him in difficult times. In the latter schemes part of the funds are contributed by the employer and the state, and part by the labourer himself. Various ways of ending the conflict have been tried but there appears to be little improvement.

The conflict between labour and capital has led to the formation of labour organisations which have become very powerful in modern times. The most well known Labour organisations.

of these are the trade unions. Numerous unions have been formed in all countries and have been federated into big organisations counting hundreds of thousands

Trade unions. as members. They hold their annual congresses. The movement is beginning in India also and there are already several unions, notably among the railwaymen. An annual trade union congress is also held. Its development in England has been immense. A trade union is a union of labourers or workers in any industry or trade formed for the purpose of mutual help and protection in matters relating to their work or trade. The trade unions have had to fight their way through a very stiff opposition of the capitalists. Formerly the right of labour to unite was not recognised at all, strikes

Labour statutes. were punishable. Even before the industrial wage system of modern days there were labour statutes in England which ordered every able-bodied man having no work or profession of his own to work for another. Under one statute even children found begging could be taken as servants, and running away was punished by their being made slaves. Conspiring against the masters made the servants slaves for life. Wages were fixed by magistrates, and the workers could not unite for protecting themselves. But these statutes were of the middle ages and were at last repealed, still they made the labourer meek, afraid, and sub-servient, and the right of combining for trade protection was not well recognised till about the middle of the nineteenth century.

Friendly societies. At first the trade unions had to be formed in the form of friendly societies, or societies formed merely to help labourers in slack times, when unemployed, or to provide various conveniences of recreation, club,

insurance, and information about work. They were organised by crafts and besides helping labour they also maintained a high standard of work. The labour

Labour bureaus. bureaus gave information to the labourer where his work was in greater demand, and even lent him money to make the journey. But such societies could not use their funds for promoting a strike, nor could they advise labourers to strike. Even now the general principle of law is that if a person induces another to break his contract with a third person then he becomes liable to pay damages to that person. In course of time, however, it was recognised that trade disputes between employers and labour stand on a different footing than ordinary breaches of contract and so the right to strike was recognised. Craft unions and

New unionism. friendly societies were replaced by the general unions of unskilled labourers with a more militant programme to protect the right of the labourers. This was termed the new unionism. Gradually the unions were organised separately for separate industries but including all grades of labourers working in the particular industry. Now a tendency for amalgamation into federations has become apparent to facilitate general strikes and several amalgamations have been established. But often their working is not quite harmonious. The necessity and justice of the trade union lies in the peculiar position of labour. In a system of free

Necessity of competition labour is simply at the mercy of the capitalist. The labourer cannot wait for work, for that means starvation, whereas the capitalist can wait and yet live. So a labourer is likely to accept the terms of the capitalist. If a labourer does not, he will be rejected and there will

be another to take his place. The capitalist can easily import labourers from other places. He has ample means of information and knows where labourers are found easily. but the labourer has not got such information. Even if he had, he might have found it difficult to move out on account of a lack of funds to meet the cost of the journey. Then going to a new place is really more dangerous to an unprotected weak labourer, than it is for a monied capitalist who can purchase all conveniences and protection anywhere. He can invest his capital in the most profitable place. Further the capitalist does not require to go in person but can invest anywhere even from a distance. The capitalist can replace labourers by using machines, adopting the latest inventions and managing his work with a smaller number of workers than before. But the labourer cannot manufacture work. He must have somebody to give him work. His hand-made produce stands no chance in a competition with machine made goods. and costly machines and factories he cannot set up, so he must find an employer if he wants to live. It may be easy to find another labourer to take his place, but it is not always so easy to find an employer. The contract is not a free contract, for the labourer it is contract of necessity. He is clearly at a disadvantage in making it. The labour of a labourer is perishable. He cannot store it. If it is withheld at any time, it perishes and gives no return, while the need for satisfying hunger and other wants of the labourer still remains. So he must work at once where he is, and necessity may force him to work at small wages. A trade union, however, can help him in overcoming all these difficulties. It can by combining labourers into one society for

Trade union
removes these
difficulties.

mutual protection prevent other members taking the place of another member, as is often done in India by the punchayats of the menial castes. They can

Utility of combination. supply information to labour about the places where he can get better wages. They can help him with funds,

and then they employ method of collective bargaining. When an individual labourer contracts with the employer, he is at a disadvantage in comparison with the resourceful employer, but when all the labourers

Collective bargaining-Capitalist can do without one or two labourers but not without all. contract in a body with him, the position is better. The capitalist may do without one or two labourers but cannot do without all, for in that case his work would be stopped, and his interest and profits would be lost. So

when the labourers act in concert, he is more likely to be in a reasonable mood and to agree to fair conditions. Such organisations have raised the labourer from his slave like condition and temperament, and have made him self-confident and assertive.

Trade unions supply information, bargain collectively, organise strikes, support labourers in times of strikes, help the unemployed and generally keep up a

Functions of trade-unions. constant fights for the amelioration of the labourer's life. They keep up an agitation, educate public opinion, and even organise political parties to carry their proposals through the country's legislatures.

Labour party. Such a party is the famous labour party of England. It includes many distinguished persons, many of whom have been workers themselves in the first parts of their lives. They have risen even to the posts of ministers. In the present British Parliament labour

forms the opposition instead of the liberals. This achievement has been due to the realisation of his power by the worker. In a system of adult suffrage the labourer has a great future, as labour has a large proportion of the votes in the country, and so an organised political party directed by able men has numerous chances of success. A parliamentary committee was formed to keep a watch upon labour legislation. In 1920 it was replaced by the general council, which besides watching legislation also looks after propaganda work and helps in amalgamation and in solving internal disputes. The trade union movement has already achieved much. It has not only secured the recognition of right to strike, but has otherwise caused laws to be enacted to prohibit child labour below a certain age, generally ten years, and night work for women and children, to limit the hours of work both for the adult and the young men. Various factory laws have been passed for the better fencing of machinery and pits to avoid accidents, and for maintaining sanitary conditions inside the factory, even for regulating the temperature that may be allowed to exist inside a factory. If it rises above the prescribed degree then the employer must take steps to lower it. By shortening hours of labour it has made it possible for the labourer also to have a social life and spare sometime for recreation and intellectual enjoyment. When he had to work from five in the morning to six in the evening with a short interval to take his meals, his life was miserable. In cases they even worked for 14 or 15 hours a day. Eight hours of work now give him

scope for other activities as well. Reduced hours increase his efficiency, enable him to work carefully, accidents are reduced, capital is well utilised and so the employer also does not lose. But where fixed capital involved is large, several shifts of workers may be arranged to use it to the most. The night shifts, however, lower efficiency and so do not give an adequate return to the employer. They also disorganise the labourer's social life and are specially harmful to women.

They have been instrumental in getting the various provisions of old age, death, illness, accident, unemployment insurances and maternity benefit made.

Even if the trade union movement had done nothing more, these achievements alone would have secured a high place in human institutions for it. But what is more is that the trade union has taught the worker

the utility of combination, and has made him a power in the land. This practical success has had another great effect. It has kept the trade

union away from revolutionary socialism like the doctrines of communism. The trade union is more concerned with the practical present than with speculation about the future. And the English socialist believes more in evolutionary advance, in a better organisation developing from the present one than in a sudden and forced transformation of society.

Trade unions often oppose the introduction of new labour-saving machines, induce the workers to do less work in the same period of time so as to provide work for a larger number of labourer than before, and sometimes restrict the number of labourers who

Objectionable
methods.

Insurances
and benefits.

Kept away
from revo-
lutionary
socialism.

may enter into an industry. All these reduce the amount of production and so the national income from which even the wages are derived. Such actions have an appearance of undue interference and embitter the industrial life of the country.

Their method, strike, has been assailed as harmful to society but it has its advantages as well as disadvantages. Besides leading to an increase of wages it makes

Strikes—their advantages.

labour conscious of its power and teaches the utility of combination. A strike is a veritable training in organisation and discipline, and this training may often give a lesson in self control.

Sabotage.

Thus in early days strikes were often attended with sabotage, or the workers tried to harm the employers by breaking the machinery or destroying the works. Pickets were placed to prevent black-legs,

Black-legs.

or those labourers who offered to take the place of the striking ones whether imported or local, from doing work, and even injuries used to be inflicted on them. In case of a disturbance firing would take place and the state forces would be called out to maintain peace. It happened in the earlier stages of the recent coal strike in England and the railway strikes in Bengal and Madras in India. But generally now the strikes are better controlled

than they were before. They go on for months and months together peacefully without any serious disturbance.

Training in self-control.

Anything which gives such a training in self-control cannot but be helpful to a disciplined society.

This very discipline, which is otherwise an advantage, makes a strike even more dangerous. It gives the power to labour and makes it a potent political power. A

Disadvantages.

strike may be organised in a trade dispute and it may also be organised to paralyze the existing organisation and government and seize political power. Such seizure may prove to be good ultimately, and may also prove to be bad. Something brought about by a revolution may not be well tested, and then instead of doing good it may actually injure. Such a strike is a standing danger to political and social peace. The general strike in connection with the recent coal strike in England was declared to be such a political strike, a challenge to the whole community. The nation as a whole opposed it and it had to be abandoned. Moreover, even economically a strike reduces production, it generally stops work when work is most wanted and reduces the national resources. It injures both the capitalist and the labourer. The former loses profits, the latter his wages. It increases the class conflicts. Even when ended, it leaves an unpleasant feeling in the minds of both the parties and prepares for another conflict. It dislocates the whole social life and creates a kind of crisis, if it is organised on a large scale. However, a strike well planned and efficiently controlled may do real good. If it is not started merely as a question of prestige, and if the shame of giving way does not prevent it from being called off, but it is ended as soon as its object is attained or becomes impossible it may be good; it may save the country's resources from being wasted and may at the same time help labour. Such a strike is likely to carry public sympathy with it.

Probably the fear of strike is even more effective than a strike itself. When once the strike begins both parties are likely to become stiff, but before it does occur, the probability of a time of prosperity may induce

Fear of strike
more effective.

the employer to accept some reasonable terms gracefully. Even then sometimes strikes may have to be resorted to. But negotiations may often effect

the purpose without a strike. In fact Rule should be negotiations first, second and always. Strike only a last resort. The strikers must always be ready to settle any fair terms, for a strike does harm to themselves also. Their rule should be negotiations first, second

and always. Strike should be declared only as a last resort, and even then it should be ended as soon as its usefulness is exhausted: questions of prestige should not be allowed to stand in the way. Such a strike will be supported by the public opinion. This is a support, which cannot be lightly disregarded either by the employer or the labourers, and the success of a strike may often depend upon how the society as a whole looks at it.

The latest development in the methods of industrial reconciliation is the institution of

A new problem—Demand for control. joint industrial councils. A new problem has arisen in the demand of labour for a share in the affective control of

the industry in which they are engaged. By being employed in any particular industry they also run a risk. If the industry falls into bad times, they will have to face unemployment. To safeguard themselves against such a contingency they should be allowed a share in the direction of a matter which is so vital for them.

To satisfy this demand so far as possible and

ensure a harmony in industrial relations joint industrial councils consisting of the representatives of trade unions and the employers in an industry have been instituted. These councils are connected with works committees, which

Joint Industrial councils.

Works committees.

are separate for different industrial units through district councils. The works committees deal with the particular affairs of their own factory while the industrial council looks to the broad interests of the industry. They examine questions relating to industrial research, technical

education and training proposals for
 Functions. industrial legislation, conditions of labour, fixing and adjustments of wages and reconciling differences in industrial disputes.

They act not merely as a curative measure like the conciliation and arbitration boards, but provide a kind of preventive machinery which tries to remove the causes of industrial disputes before they actually appear. It is true that their functions

Though mostly
 consollative,
 yet useful.

are mostly consultative, still by bringing the employers and labourers together, instead of ranging them into opposing camps, they do help both the parties in perceiving their common interests, and devising a satisfactory solution for their outstanding problems.

A serious problem of the present industrial organisation is the creation of a standing

Standing idle
 reserve of
 labour.

idle reserve of labour. Even in normal times there are seasonal fluctuations in certain industries like agriculture.

The cultivator is idle for a certain period of time every year. Moreover there are irregular fluctuations of labour in every industry of busy and slack times, and a reserve of unemployed labour becomes necessary to provide additional labour when an industry is enjoying a good time. It has become a kind of necessity of the present industrial system. And then there are the liabilities to overproduction, which so often cause a crisis and increase the ranks of the unemployed. Various remedial mea-

Remedial measures. sures have been tried but the problem is not nearer a solution. Provision of work by starting new schemes of development, providing supplementary industries to cure seasonal fluctuations, organising short time working of factories are some of the ways tried, but the unemployed remains. A scheme of unemployment insurance has become necessary. When every labourer employed pays a premium, sufficient funds may be accumulated to provide a subsistence for the unemployed, as the unemployed will only be a small part of the total men employed. Thus every man pays while he is in employment to get support when he can not find work.

Demand for security and control. This feature of industrial life has accentuated the demand of labour for a voice in the control of the industry, so as to provide a security of employment to the workers. The employers argue that if the management be handed over to the labourers entirely, the conditions will not be much different, as they are due to natural forces. But the labourers would naturally like to suffer, if they have to suffer, at their own hands. As

Question of status. they run the risk, they should be allowed to see if they can devise ways to reduce it. Moreover their collective bargaining and equal negotiations with employers have increased their status and they demand an equality with the capitalist in governing industrial life. Some may go further and advocate various schemes of socialism which are dealt with in another chapter.

CHAPTER XXVII.

INTEREST.

Interest is the value paid for the use of capital.

What is interest. When a person does not use capital himself he is not making the extra production with its help which he could have done. He allows it to be done by another, and he takes part of the extra production as a price of the permission to use his capital. This is generally called interest.

Use theory. This view of interest, as a charge for the use of capital, is called the "use theory." But some writers, who consider interest to be due to exploitation, object that the use of a thing cannot be separated from the thing itself. Consequently taking this extra charge is said to be pure exploitation. This argument is a very old one, but is unconvincing. In lending the use of a thing the owner does deprive himself of the command over it, for a period of time and permits another to have that command. This is the use of the thing, and the owner is undoubtedly entitled to be compensated for this deprivation.

The "exploitation theory" of the socialist applies not only to interest but to all shares in distribution except that of labour. It asserts that rent, interest and profits are all the results of the exploitation or spoliation of labour, that it is labour which really produces and these other factors appropriate the product of the labourer to their own use. It may be noticed that the employer pays the wages of the marginal labourer to all the other labourers, and so in theory appropriates the excess of the produce of the other labourers, and reaps a consumer's surplus. But a moment's

Exploitation theory.

Employer gets a surplus on labourers above the marginal.

consideration will show the mistake of this conclusion. The employer reaps a surplus not because the previous labourers laboured more than the marginal one. If the previous labourer is more productive it is due to the urgent need of the employer to keep his capital, if not all then at least a part, working somehow, otherwise the toil performed by the two labourers would be the same for equally efficient workers. If he had not got them he would have increased wages to attract them, for going without them meant a great loss to him on account of the non-adjustment of capital and labour. The case is in a way, like that of diminishing utility. If a hungry man is willing to pay Rs. 5/- for one loaf of bread, if he can somehow get it, that does not make Rs. 5/- the fair price of that loaf. The fair price will be found when there is neither so great an excess as to reduce the price below the cost of production, nor a scarcity to make the price go above the marginal utility, or where the marginal utility coincides with the cost of production. Yet the consumer reaps a surplus of utility, because the utility of the other instalments of the commodity to him personally is greater than this price. On the other hand the labourer himself reaps a surplus. He tries to charge the same rate of wages for the earlier periods of work when the disutility of work is not so great, as for the marginal period when the disutility is the greatest. If the employer exploits labour, labour may be said to exploit the employer through this surplus. The labourer also reaps a surplus. It is absurd, therefore, to talk of exploitation. It was true when under the system of free competition the labourer was at a disadvantage and he was overworked, but now his position is fairly strong, and is becoming stronger every day. It is quite clear that a labourer working alone by the direct method does

not produce as much as he produces when assisted by some instruments. It is true that instruments also were made by some labour, but it was not the labour of him who uses it now on loan, and so he should pay for the use of the product of another's labour which enables him to produce more. Even if the

Ownership of labourer owned the capital, the extra capital im- production due to the use of capital material. will be maintained, and this extra pro-

ductivity will be the return of the capital cooperating in production. Interest is the whole or part of this return, and it will exist with any one who owns the capital. Thus it is clear that exploitation does not produce interest, it may, at the worst, transfer the interest to persons who may not be entitled to it. Even in this sense it is not quite correct to call it exploitation as shown above. In any case theoretically we are concerned only with finding the return to capital, and that is interest.

Another theory asserts that this labour of producing the instruments was performed by the capitalist. It may be that the actual instrument was made by somebody other than the present proprietor, but the present proprietor paid value for it in open market from the store of value he had accumulated by his own labour or the labour of his ancestors. The right of the ancestors to leave the store of value to him cannot be questioned if you allow to a labourer the right of disposal over the product of his labour. He may use it himself or may gift it away to another, or may leave it to his descendants. It is, therefore, the labour of the capitalist which stands embodied in capital, and the capitalist is entitled to its fruits as products of his labour. That it has the power to give products is clear from the fact of its increasing

Capitalist's
labour theory.

the productivity of the labourer's work. The products of the previous labour of the capitalist accumulated because he did not use them but postponed their use. A labourer may do extra hardwork on certain days to prepare for a holiday, or even to provide for days when he may have no work. Or even with ordinary work he may be making a little saving. Will it then mean that the savings so made should be paid into the government treasury? If the savings are easily made without much discomfort that is no reason for relinquishing them. Moreover, they are easily made now owing to the increase of capital, but when they were first begun, they were as hardly made as those of a labourer. It is a fact that many persons, who save, do save at a cost of immediate enjoyment. In every case the labour exerted in producing it originally is there. It is as if labour were stored, and so is entitled to earn as living labour is. Another way of putting the same thing is that the capitalist performs a special function in the advance and prosperity of society, and interest is a return for that service. This view brings into relief the social utility of capital. The service performed consists in working so as to produce more than absolutely necessary for the necessities of life, and saving the extra sum for increasing capital, which helps to increase the production of society and leads to a general advance. If saving is useful to society then it should be encouraged by being made profitable.

Social function
theory.

The abstinence theory tries to justify interest further by showing that in this act of saving there may be actual abstinence practised by the person who saves. When he suffered this discomfort at one time

Abstinence and
time utility
theories.

why should he not reap the additional advantage now? As a matter of fact most of the capital saved, however, does not necessarily involve abstinence. Such an argument is considered as a "grim jest" of the capitalist by the socialists. Still there is an element of truth in the theory. There is a certain self denial, however, slight of the enjoyment of the present utilities for the sake of the future ones. But while these theories justify or attack the legitimacy of interest, they do not tell us the cause of the addition to the utilities effected in capital, which gives rise to interest. One theory which attempts to do so is the "time utility theory." Time has got value and so the lapse of time should leave its value in the commodity which remains in existence. It is this expectation, which induces a man to save. It is like time utility accumulating in the capital saved. The case is similar to that of a merchant who produces a greater utility in his goods by stocking and storing them. It is, however, evident that time by itself does not necessarily impart value. In fact in cases it may even decrease it as in the case of perishable goods. It is the particular use of a commodity in a period of time which produces additional utilities. Unused capital will yield no income.

The Austrian economist Bohm-Bawerk explains the rise of interest on psychological grounds in the "agio theory." Man by nature

Agio theory of interest: prefers present goods of the same value to future goods. The present has a greater value than the future. If the future is to be made equal to the present in utility then it must promise an extra quantity of goods to make up the difference between the estimated values of the present and the future goods. This extra

quantity required to equalise the values is interest. The extra quantity will be different for different persons as it is a subjective estimation. It will be different for different societies. In educated and prudent communities a small inducement will encourage savings, while in backward or poor communities a high rate will be necessary. This theory emphasises the supply side but is not sufficient by itself.

A man goes to the mango garden but instead of plucking the fruits directly, he first cuts a bamboo and uses it for felling ripe mangoes. He has had to wait for some time and to put extra labour in cutting a bamboo before getting mangoes, but the result of this waiting and of the ingenuity of his labour is that now he has an instrument which enables him to get a large number of mangoes not only on that day but on other days also, and he will use the bamboo, the product of his labour, for the purpose for which it was intended as long as the bamboo lasts.

The form of capital makes no difference.

Whether capital is saved in the form of money or actual commodities it makes no difference. Suppose the mango-eater instead of cutting a bamboo

himself purchases it from a bamboo-cutter. The cutter did not cut it for felling mangoes, but for obtaining its price by its sale, and purchasing with that price his own necessities. So the moment he gets the price of his products, his object is accomplished. He has not to put in any waiting. If he has waited for selling it because he did not get a good price before, then he has been rewarded by the good price now. But the purchaser, who spends his money, does put in waiting. He got that money by working just as if he had worked in cutting the bamboo. He waited and did not use that money for his consump-

tion just as he would have waited in the case of bamboo-cutting before enjoying the fruits of his labour. All that money does, is to give a general command and choice over the different kinds of wealth, but the principles remain the same.

The productivity theory lays stress upon the demand side. It notes the fact that round-
Productivity theory emphasises the demand side. about methods of production are more productive than direct ones. Labour working alone does not produce as much as when assisted by capital. There are two great objections against this form of the theory. With progressing civilization capital increases and also develops more productive forms than before, but although the productivity is great the interest falls. Secondly capital is not equally productive in different industries and so its interest should vary with the productivity in different uses, but in reality it tends to be equal. Still so far as the theory emphasises the productivity of the capital it is a useful one. Moreover, as we shall see shortly, the whole extra produce is not paid in the form of interest, but only a part is paid, and as this part, or the general rate, is determined by the conditions of demand and supply, the rate will be one in the money market and will be lower with the increase of the supply.

The additional productivity induces the producer to search for a supply of capital and makes
Interest is not the whole extra produce. him willing to pay something for the use of that capital from the extra production which he makes with its assistance. The real return for capital would appear to be all that extra amount which it produces, as would be the case if the owner of the capital himself produced with its aid, but in lending it to another he must be content

In lending part
surrendered to
the borrower for
his taking the
risks.

with something less, otherwise the other party will not take the trouble and responsibility of borrowing and working the capital. And so part of the extra production will be retained by the borrower as a return for the borrower's taking risks of using the

When capitalist
himself produces
his returns partly
for similar risks.

capital and producing with its help. In the market interest is the name given to the return which a creditor gets from his borrower for the use of his capital.

Even if the capitalist produced himself, part of the returns would be due to his undertaking the risks of that method of production. Take the case of our friend the mango-eater. When he engages in cutting a bamboo, he stands a risk of not getting a good bamboo, or the bamboo may break, or some other contingency may happen which may prevent him from carrying out his plan successfully. A storm may come and may make him fly home before he has cut a bamboo or plucked mangoes. In that case he would have been better, if he had plucked mangoes directly, but he took the risks and his success will depend upon his calculating the chances for and against him, and for this ingenuity he will get an extra result. In the mangoes obtained he, therefore, gets a return for that ingenuity in overcoming the risks. The ingenuity remains even when he purchases the bamboo and puts it to that particular work. The return for taking these risks is called profits, and it has to be deducted from the extra produce to find out the excess due to capital purely. This excess will be the return due to the work of capital and the capitalist would try to get the whole of this excess in his rate of interest, while the borrower will try to give him as little of it as he can. The capitalist's minimum will be the cost of waiting

required to produce the capital, and the borrower's maximum will be the productivity of capital.

The amount of interest will be determined by the laws of demand and supply as in the case of other commodities and of wages, and rent. The general theory of value will apply in this case also. On the supply side the extent of abstinence will be determined by the compensation or interest expected for it.

Waiting or abstinence is a disutility, for it postpones the enjoyment of utilities. The disutility increases as time of waiting increases for an equal amount of wealth, for every body desires to enjoy his wealth as soon as possible. Some persons may be in the position of having enough and to spare, who can satisfy their wants and yet have plenty to save, but even they will try to see that their wealth is not wasted and is increasing. They too have often to forego some desire to spend their wealth in some impulsive ways. Another characteristic is that this disutility increases with the amount of wealth saved. The increase in the savings decreases the utility of saving further and increases its disutility. One feels a desire to stop saving when he thinks that sufficient has been saved. He will

save till that amount is reached, the disutility of which is just compensated by the expected return. This will be the margin of saving and the amount will be the marginal saving. This margin will be different for different persons, as the disutility of saving is likely to vary with temperament and wealth. Those, who have plenty of things, will find it easy to save and the margin will be low for them, while those, who have not an excess of wealth, will not

Marginal theory.

Disutility of waiting increases with time, and amount of wealth saved.

Margin of saving different for different persons.

save much if the interest is not sufficient to compensate them. Still some do save at the cost of great disutility because for them the future utility of the interest, which they are likely to get, is great. In fact the comparison is not between merely the money rates of interest, but the saver calculates the utilities he will get in future by abstaining from consuming the present utilities. It is clear that for rich persons if the utility of interest is not so great, the disutility of the saving also is small, while for the poor if the disutility is great, the utility of the interest also is great. Both may be expressed in terms of the general measure money. There will, thus, be a supply schedule of the various amounts of capital that will be saved at the different rates of interest by the numerous savers.

On the demand side capital is wanted for various kinds of production ; in each production it will be employed up to the point where its productivity just compensates for the cost of obtaining it. Here again the greater the amount of capital available the smaller will be its productivity till a point is reached beyond which it is not wanted. The capital used just above this point will be the marginal capital used. Every producer will have his margin of utilization for capital. This margin will be different for different branches of production just as the utility of a commodity for different purchasers is different. There will be a demand schedule of the various amounts of capital that can be taken by the borrowers at different rates. Those producers whose margin is lower than the prevailing interest will drop out. The prevailing rate will be determined at the point where the

Utility of
interest also
different.

Comparison
of utilities
in terms of money.

Margin of
utilization.

Point of equilibrium. largest number of suppliers of capital and those who want it can come together or at which the largest amount of capital can be utilized. It should be noted that capital can be increased much more easily than commodities or labour, which require a longer period of time for their production.

Kinds of interest. Sometimes interest rises even though capital is not scarce. The reason is to be sought in some extraneous forces. Thus in war time interest rises not because

capital is not to be found but partly because it is more in demand and partly because there is the insecurity of life, and so the capitalist charges something for the risks he undertakes in lending. In

Net interest. such cases it is not pure interest or net interest. Net interest is that rate which is paid only for the use of capital. It is sometimes termed economic interest. This is the case with those borrowers who have a first class security. But in their case also the capitalist may charge something for his labour of management. He tries to secure the best securities for his investment, and takes care that his interest and capital are returned at the proper time. The time for which the loan has to run should be convenient to the lender. It should be repayable on demand and should run for a fairly long period. If it runs for too long a period, the lender may not like his capital to be locked up so long. If the loan is to be repaid in a very short time, then he will have to reinvest it, and he may not be able to find a good investment immediately and his capital may remain idle. In such a case the lender may charge a higher rate to compensate himself for the loss of the interest later. In case of such loans running for in inconvenient terms

the lender may charge something for the extra labour. For all this he has to take some trouble and exercise some care. So the actual rate of interest includes a charge also for the labour of management and an insurance charge for the risks of the business. The actual rate is composed of several items such as pure interest, wages of management, a charge for inconvenience, and profits for the risks, and

Gross interest. is called the gross interest. Risks may be due either to the kind of business for which the loan is taken or may be

due to the doubtful honesty of the borrower. The credit and resources of the borrower form the security and have to be carefully examined. It should be remembered that we have been speaking of capital in general or fluid capital, which may be put to different uses. It is generally in the form of money. But it is only for the sake of convenience of expression that we speak of it as capital, other-

Capital in general. wise real capital and real interest consists of the commodities. The bor-

rower borrows the commodities, he requires to help his production, and pays the commodities that can be purchased with the money interest Hire of commodity capital.

that he pays to the creditor. When capital is lent in kind or in the form of commodities, such as a machine, the hire will include besides net interest, the charge for management, and for the risks, a charge also for depreciation of the machine or commodity, for when the commodity is returned, it will not be in the same condition. This hire is the gross interest in this case. There may be some accidental considerations, which may increase the gross interest. When a person desires that the fact of his taking a loan may not be known, the interest is increased as if to include a return for keeping the

secret. The reason is that the necessity of secrecy does not allow the borrower to go to many capitalists. He can go only to a few whom he can take into confidence, and so his loan market is limited and isolated, and the interest will be determined by his demand compared with the supply of this limited market. If the need is great, he will pay a high interest, as for short periods in isolated markets the demand is the chief factor in determining value.

The mobility of fluid capital is the greatest amongst all the factors of production, as it does not suffer from the sentiments and associations like labour, and is not immovable like land. In organisation also the organisers being themselves living and conscious do not move quite so easily, but their ideas may be adopted elsewhere. This takes time, but capital moves easily where it can earn higher interest provided there is a security of investment and freedom of communications.

Net interest tends to be equal in free communications and perfect security. Therefore, the net rate of interest tends to be equal in the long run in all places satisfying the above two conditions. There may be a difference in the actual or gross rate owing to certain conditions such as risks or difficulties of management or due to accidental circumstances of short periods, such as when the central bank in a country raises the rate of discount and attracts capital from abroad. In practice

Actual rate varies. it is found that in spite of the great mobility of capital as the actual investment of capital means sending it out of one's control for a long time, and as different states have separate governments with possibilities of war and peace, one does not invest in other countries quite so willingly as in his own. Therefore,

Difference in world market for capital and for commodities;

while the net rate tends to be equal, the gross rate may vary widely. Sometimes even the net rate may be different in different countries if capital is scarce in one and does not come in from the others. The case is different with commodities, for there the risks are dissolved the moment the price is received, which is done at once or does not take a long time, and the risks of a short time can be easily calculated. So the price in the world market for commodities tends more to be equal.

Rise and
fall of
interest.

The rate of interest, like prices, rises if the supply of capital decreases or the demand for it increases. The supply may decrease because the prevailing rate is not sufficient to pay for the cost of saving or because other things, such as a disturbance or war, makes investors shy, and they hold back the stock of capital. The demand may actually increase on account of production being stimulated.

Causes of
the rise.

or it may appear to be greater because of a decrease in the supply or it may be increased for unproductive uses like war. In the last case there is no limit to the rise in theory, but in practice too great a rise may cause a crisis. Indeed a gross interest may be anything even in times of peace. In India the agriculturist often pays interest from 36 p. c. to 150 p. c. owing to his bad security. This is the reason why the Indian "ryot" is so poor and indebted. Co-operative credit societies are being started to relieve him. The principle of joint responsibility solves the problem of security for the loan, and so a cultivator can get funds at a much lower interest than the one he has to pay to the "sahukar."

Interest tends to rise with prices, because a rise of prices means a fall in the value of money and

Relation
to prices.

so the interest in the form of money becomes less valuable than before. To make its value the same the money rate should be increased. Opposite will be the case when the prices fall. With rising prices new producers begin production and so the demand for capital increases raising the rate of interest. With falling prices demand for capital, and so its interest, will fall.

Meaning of
rise.

Scarcity of capital and the rise of interest is generally expressed in terms of money, as money is the general measure, but in reality a scarcity of supply means a dearth of the instruments, or commodities required for the processes of production, available to the producers. In practice it happens, when the producers have not got the power to take possession of those commodities or instruments. This power

Rate may be
high though
commodities
are in plenty.

would have been their readiness to give commodities in return for those they require, if there were a system of barter, but in money exchange money is required for this purpose. So it may happen that although the quantity of commodities is large in a country, the rate may be high because money is going out of the country to pay for imports. This will be so for short periods. In long periods the quantity of production in a country will determine the amount of funds necessary to exchange it, and the funds will tend to be sufficient. So long as money has not adjusted itself to the work to be done, an increase in the quantity of goods will cause a scarcity of money, as more will be required for exchange, and a decrease in the quantity of goods will be like an increase of money and the rate of interest will be effected by the quantity of money in relation to the work to be done. But in the long period

the amount of funds will represent truly the quantity of goods as money will have had time to increase or decrease as the case may be. Therefore in practice capital is taken to be represented by money required and available, and the rate of interest is determined by its shortage or excess.

Capital
generally
represented
by money.

A high rate of interest indicates a shortage of funds. This leads to a fall of prices. A fall of prices induces exports, and funds flow in both in payment for exports and for earning the high rate of interest in the form of arbitrage business. A high rate of interest also increases savings, as the margin of savings moves down, for a greater disutility of saving can now be compensated than before, and so capital increases.

Effects of a
high rate.

Its advantages.

But at the same time a high rate does harm as well. It discourages production for two reasons. Firstly because it makes it difficult to get capital on easy terms for production, and so its demand decreases just as a high price decreases the demand for commodities. Secondly lower prices make production unprofitable, and so production is retarded till a demand for exports springs up, existing stocks are cleared and the prices rise again on account of the new demand. By decreasing production a high rate of interest decreases the demand for the other factors of production, and tends to lower their returns on the principles of joint demand. A third evil effect is the increase of the rate of profits if the rate of interest remains at a high figure for a long time, for the rate of profits moves in sympathy with interest. If the rate increases, the organisers also consider themselves entitled to a higher remuneration and this further decreases the margin available

Its disadvantages.

for the other factors, land and labour.

Similarly a low rate of interest is caused by an increase in the supply of capital, or a decrease in the demand for it, or by improved conditions of security and communications, so that it may move freely. We have seen that production from capital follows the law of increasing returns as man can improve its forms and organisation. Increasing returns imply that capital should increase indefinitely, lowering the rate of interest practically to zero, because the increase will be at a progressive rate. Moreover in a progressive society the investing habits are well developed and a small interest is sufficient to induce savings. Therefore, both the increasing wealth and the increasing investments continually tend to lower the rate of interest. It is found in practice, however, that there are intervals of low interest followed by those of high interest. If capital is capable of unlimited increase, human wants, the satisfaction of which provides work for capital, have an unlimited variety, and that variety increases and changes with the whims and fancies of times, or with the advance in knowledge and information.

The fall in the rate of interest indicates an excess of capital or money and leads to a rise of prices. This stimulates production as the rise in prices makes the production of goods more profitable than before. Besides, additional capital for increasing production can be had cheaply. It increases the demand for other factors of productions and there is a general advance in prosperity. At the same time it decreases profits. But a low rate also induces capital to go out of the country to earn a higher rate of interest elsewhere. The increase in

Low rate of
interest.

Tendency to
decrease of rates
counteracted
by increase of
wants.

Effects of a fall.

the internal prices creates a demand for imports from cheaper foreign markets and capital tends to flow out till there is a readjustment. But a readjustment at a lower figure is beneficial than at a higher figure. This happens when the excess of capital is not accidental owing to the ebb and flow of trade, but there is a real increase in the supply of capital. A low rate generally decreases savings as the margin of disutility moves up.

Interest is attacked just as profits and rent are by those who hold that the whole produce is due to the work of labour. In the case of interest what makes it appear even more unconscionable is the fact that the capitalist generally sits at home, while he is earning interest. This is a kind of monopoly, and the drawing of an income without working for it, while the unnumbered masses be toiling hard to get bare living, looks to be very bad and undesirable. There appears to be something rotten in the system which has made this possible.

There is some justice in the above view. The present organisation of society does give The force of the attack. an undue power to the possession of wealth. A wealthy person commands everything in the world, while a poor one may actually starve. Even the administration of justice is easy and speedy for a rich man, and it may not be available at all for a poor one. Wealth hides all faults as charity used to do in days of old. But this is a defect of the particular organisation, it does not prove interest to be unjustified. In any society where there is private property and accumulation of capital, there will be interest if that capital is used productively. Why in some cases interest is forbidden, as in Islam, is due to the fact that in those

Its justification necessary with private property.

No interest injunction. times loans were taken mostly for personal necessities, and it looked so un-neighbourly and cruel to make profit out of the needs of another. But when capital is used productively, and one increases the amount of production with its help, a share of that increase as interest may justly be taken, for thereby no advantage is taken of the neighbour's needs, but he is rather helped to earn more than he used to do without the supply of that capital. On the part of the capitalist there has been the disutility of waiting. One waits only when one expects an advantage from it, and if that advantage can be taken without doing injury to another, there is no reason, why it should not be accepted. The capitalist need not work now, for so far as capital is concerned, he has already worked. His labour and waiting have given a peculiar quality to that capital and that is of yielding a recurring return.

Interest now derived from production. If he also works with the capital and undertakes business risks then he will be earning profits in addition to his interest. The two functions of capitalist and entrepreneur are different, and may properly be separated as they are in modern society.

The justice of capitalist not working. Using and creating capital are two distinct functions.

Even as an idle capitalist he has not been useless, but has performed a distinct service to the society. It is the increase of capital which has made huge works possible, has increased production and the comforts available to man. Great bridges, canals, railways, and ships have been built. Spare capital has enabled research in the sciences to be undertaken resulting in a greater mastery of man over nature. It is the patronage of the rich that has developed civilizing arts like music

and painting. From a brute a man has emerged through the leisure and freedom from anxiety afforded by the possibility of storing capital and using it as a source of independent income. It is true that it has done many harms also, but it has made us at least capable of understanding that harm. If the choice were between a society like the present and a savage condition, there is little doubt which even the extreme socialist will choose. It does not mean, however, that no improvement is possible or desirable. Improvement is possible, it must be made, and it is being continually made, for therein consists the advance of civilization, but this improvement does not mean the rejection of principles which have the force of truth behind them. It is private property which has made this advance possible. We cannot imagine what would have been the condition without it. So far no system has been successfully worked without private property, and with private property will remain interest. What is necessary is a better education in civic duties, a more equitable distribution of functions and advantages of social life, a turning away from the rush after wealth and a greater attention to the fact that wealth is after all a means, that the real object of economic activities is the increase of human welfare, and that those economic activities are socially harmful and scientifically misdirected, which decrease the social welfare and increase the misery of the labouring population. We should always remember that if the labourer is a producer he is also the person for whom production is undertaken. Indeed by paying him insufficiently we decrease his purchasing power and place a limitation to the increase of production itself. Such a policy is really a short-sighted one. Adequate wages may be not only just but even advisable.

CHAPTER XXVIII.

PROFITS.

The functions of an entrepreneur are different from those of the capitalist. The capitalist provides one of the factors of production, while the entrepreneur adjusts the various factors of production into one whole scheme so as to produce most with the minimum cost. He uses the capital which the capitalist provides. If he is supplying his own capital, he is performing two functions, and he is entitled to charge for his interest in addition to the profits that he may take. But he should not be confused with a manager. A manager takes no responsibility; he only tries to keep production properly going on; whether the ultimate result is a loss or a gain, it is not so much his concern. Many persons like to take service as managers under others rather than bear the constant strain and anxiety of their own work. This anxiety and botheration show that the entrepreneur's work is something different from that of the capitalist and the manager.

Entrepreneur. capitalist provides one of the factors of production, while the entrepreneur adjusts the various factors of production into one whole scheme so as to produce most with the minimum cost. He uses the capital which the capitalist provides. If he is supplying his own capital, he is performing two functions, and he is entitled to charge for his interest in addition to the profits that he may take. But he should not be confused with a manager. A manager takes no responsibility; he only tries to keep production properly going on; whether the ultimate result is a loss or a gain, it is not so much his concern. Many persons like to take service as managers under others rather than bear the constant strain and anxiety of their own work. This anxiety and botheration show that the entrepreneur's work is something different from that of the capitalist and the manager.

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Nor the manager. manager takes no responsibility; he only tries to keep production properly going on; whether the ultimate result is a loss or a gain, it is not so much his concern. Many persons like to take service as managers under others rather than bear the constant strain and anxiety of their own work. This anxiety and botheration show that the entrepreneur's work is something different from that of the capitalist and the manager.

His function is to initiate and carry to success. His work is to initiate production, whether in an altogether new line or an extension of an old one, and to carry it out so well as to make it profitable. If it is unsuccessful, he loses the capital and his labour, and it cripples his power for the future as well. The personal responsibility brings all his powers into play. He takes the risks of success and failure, and tries to provide against them by making as good an adjustment of

Adjusting land, labour and capital.	land, labour, and capital in a production, as is possible. If this adjustment is not good, if there is a wastage anywhere then to that extent he will suffer; his costs of production will be increased and the market for his commodities will be reduced. It is his success in this organisation that decides whether he is going to be successful or not. If he is successful the costs are decreased, his goods sell very well and he gets a good return. If there is a new machinery invented, it calls for a readjustment of the factors of production, for now smaller labour and more costly machinery will do better work. The entrepreneur keeps an eye on all possibilities of economy. What is necessary is not mere production but also the disposal of production, and for this purpose he adjusts production to the demand.
Adjustment of production and demand.	If the demand is great, he increases production. He creates new demands by advertisement and show-rooms so as to make a market for his produce. All this means efficient organisation. If he is successful, he gets a return which includes a share for his labour as an organiser. An organiser may have managers under him to look after the details of the work, but how these managers are to work will be laid down by the entrepreneur who is ultimately
Constituents of profits.	the only person responsible. Consequently the rate of profits includes an element of return for this work, and a rate by way of a percentage on the capital invested to compensate for the risks of the business which he has undertaken. The reason, why profits
Why a percentage of capital.	are expressed as a percentage of the capital invested, is that the risks he incurs are in respect of that capital. And so the

amount of profit that will call forth his energies, make him calculate the chances, undertake the responsibility of risks, and devise ways to minimise those risks, should tell him how much on that capital he is likely to gain if he attains success in his enterprise.

The total amount that remains to an entrepreneur after paying his out of pocket expenses is his income and is called gross profits.

Gross profits. Besides net profits it also includes the wages of his labour performed in the business, the rent of his land, and the interest on his capital, if any. Net profits

are the returns due to the performance of the one function, the undertaking of the enterprise. But these net profits are not pure profits. They consist of two elements. One of pure profits and

the other of a surplus like rent. The pure profits. pure profits consist of a kind of insurance charge for the risks undertaken. Over and

above these there are various surpluses in the nature of rent caused by the actual short period market conditions. There may be a rent of conjuncture due to special circumstances like aware, a personal rent of ability due to able entrepreneurs reducing the costs and reaping a surplus over the incapable ones, or due to the accidents of the situation. These surpluses,

over and above the pure profits, are also termed surplus profits.

One theory of profits is, that profits are the residue left from the price realised from the sale of goods after allowing for rent, wages, and interest. Profits themselves are split up into a charge for labour of organising and a special high rate of interest, to compensate for the risks, this interest is taken at

How determined-
Residue theory.

a high figure because interest in the form of profits is not so certain and regular, and to compensate for the irregularity and uncertainty it has to be large. But this view confuses profits and interest which are in reality different. Interest is the return for capital and profits are for the risks and organisation. We have seen that capital and organisation are two distinct factors of production and have distinct returns. It is true that profits are made up of what is left after allowing for rent, interest, and wages. The residue varies with the conditions of the market, as it should, because it is a return for the risks, which risks are great or small under different conditions. Profits are a kind of changing surplus due

A changing
surplus, a
quasi rent.

to the changing conditions of the market. Theoretically there should be no profits in the long run as any excess will be cut down by competition. In this form profits become merely another name for quasi rents or the short period surpluses in prices obtained by the producers. But it is not quite accurate to say that under free competition there will be no residue or no profits, and that any thing more than the wages of organising and interest would be cut down by competition and ultimately the price will be equal to the cost of production, which includes only wages, interest and rent. For in that case an entrepreneur will have no function and will have no inducement to undertake the risk of loss and would rather take service under another as a manager. It has been seen, that the labour of organising is different from the anxiety and trouble of responsibility for risks, and wheresoever these risks are present there are profits. It was also seen that in gross interest itself an element of profits enters. Profits, therefore, are a distinct return for

risks and form the residue left after allowing for wages, interest and rent. If the entrepreneur enters his own wages as a separate item in the account then the residue is a pure short-period return for risks of organising, and if he does not then it includes also an element of wages.

The American theory of profits. An American economist, Prof. Walker formulated a theory of profits on the analogy of economic rent. Just as there are lands of various degrees of fertility so there are entrepreneurs of different capacities. Some entrepreneurs are able to put up an efficient organisation while others are not able to make a very economical adjustment of land, labour and capital. The costs of production of the latter are greater than those of the former. If the demand for the products is sufficiently high to compensate the higher costs of the latter, the former will reap a surplus like that of rent. While rent is due to the natural qualities of land, this surplus will be due to the possession of superior abilities of organisation. As there is no-rent land, there will also be a marginal no-profit entrepreneur, whose other costs are just compensated by the market price. Such a surplus may be obtained not only because of superior ability, but may sometimes be due, at least in part, to accidental circumstances *e. g.*, an industry started in a progressive and industrial country, because the entrepreneur chances to be living there, will have greater chances of success and will yield a higher surplus than an industry started in a backward country. Such a surplus may be compared with situation rent.

No-profit entrepreneur will go out. But it should be remembered, a no-profit entrepreneur will not continue in production. If he gets merely his out of pocket expenses and his own wages then why

should he take the responsibility of the business upon his shoulders. He may do better by seeking service elsewhere and escape the constant anxiety connected with one's own business. It is true that if he entered the business by mistake and invested a large amount of fixed capital, which can not be changed easily to other uses, then he may continue in the industry if he can realise even the interests, rent and wages. But he is not likely to continue in this precarious position indefinitely. In fact a producer may continue to produce even at a loss for sometime, but ultimately he must leave the business if the loss continues. One will remain in a production only so long as he is able to get at least some returns, which he considers minimum, over and above his mere wages, for his taking up the risks. A return

Personal rent.

over and above this minimum return realised by the capable entrepreneurs will be in the nature of a personal rent created by the market conditions. In the case of land a no-rent land may continue in cultivation, because it yields besides interest and wages, also a rate of profits for the risks of the business, but it yields no rent. Even then its cultivation remains profitable. While this personal rent will not enter price, the minimum rate of profits will tend to enter the calculation of costs and will affect price in the long period. In the

The modern form of the theory.

modern form of the theory it is recognised that a minimum rate enters price and the rate of actual profits varies according to the ability of entrepreneurs yielding a surplus like that of rent.

These profits form the extra production due to the element of organisation. We have already seen that efficient organisation adds to the productivity of the other

Profits
found from
extra production.

factors and this extra production is the return to the enterprise and skill of the employer. In short periods profits do not affect prices very much. They form the residue left from price after allowing for other costs and include certain short period surpluses

Profits vary with market conditions in short periods.

of the nature of rent. They measure the success or failure of the entrepreneur's organisation and so naturally come after his work is done and the goods are sold. They vary with market conditions. They may be nil or they may be very large. But at the same time it is true that a normal rate of pure profits

General rate of normal profits

tends to be established in the long period. The normal rate will be the minimum rate which an entrepreneur

should expect to get from his business. He undertakes the risks of losing it or of gaining more, but if he cannot even expect to get that rate

Will tend to enter price in long periods.

then he will not enter the business at all. This rate he will try to realise in the long run and will include in his

costs of production. He may be able to realise it by being able to sell at a price in which he gets his profits also, or he may not be able to do

But will bear the first effect of low prices.

so and he may have to sell at a lower price as is done in slack times. The profits will be the first element to bear

the effect of the fall in prices, for this possibility is the one which constitutes the risks. But

Tendency to a general rate.

his normal minimum price will include his minimum rate of profits. This mini-

imum will tend to be a general rate for all producers, for if larger profits are obtained in an industry the competition of new producers will bring the profits down again. On the other hand if the profits are smaller than this rate, some producers will leave the

business till the scarcity of goods raises the prices and the profits again. It may be that a huge amount of fixed capital is invested in a work, which is not easy to change and so one may continue that production at a lower rate of profits rather than give up the whole capital altogether. But if he does not go out he will curtail his production, and new entrepreneurs will not take to that business. The supply of its commodities will decrease and the demand will again tend to make the production profitable by increasing the prices. But if the decrease in the demand is permanent, then the adjustment of prices will be at

Demand and
supply.

a lower figure and the profits of that business will remain below the normal or may even disappear, and ultimately such a producer will leave that line. This normal rate is found by the ordinary laws of demand and supply working here as well. In taking risks the entrepreneur has to make up his mind. The mind is easily made where profits are large and risks are small. A business may be so certain that one may undertake it even for very small profits but there will be increasing difficulty in making up the mind with a decrease in profits

Margin of risks
and marginal
profits.

or an increase in risks till a point is reached beyond which the entrepreneur will not go, where the risks are just compensated by the profits expected. This will be his margin of risks and the profits will be his marginal profits. If the risks are great, he will not be induced to take up the work, if the risks are small, he will take to it easily. Different entrepreneurs will estimate the risks differently. This is on the side of the supply of entrepreneurs. A supply schedule of entrepreneurs can be framed showing the number of entrepreneurs available at the various rates of profits for an industry. As the profits de-

crease the supply will decrease.

On the demand side the profits that are yielded by the various industries or productions will constitute the demand prices. In the same industry in the beginning the profits will be large but as producers in it increase, the profits will decrease till they just compensate for the risks. This will be at the margin of production. As the risks in different industries will be different, the marginal profits, that will just compensate those risks, will be different. For each industry a demand schedule can be framed showing the number of entrepreneurs who can be accommodated in that industry at various rates of profits. As the rate decreases, the number demanded or accommodated will increase. Thus the two forces will interact, and between the two schedules there will be a point of equation at which the largest number of entrepreneurs find scope for work. The competition between rival producers will tend to reduce profits in the more profitable concerns to the general rate profits. In the long run this general rate tends to coincide with the marginal profits. Where they are more new entrepreneurs will enter, and where they are less old entrepreneurs will leave work. And so this marginal rate will tend to be established, and these marginal profits will be included in the costs of production. If they are realised, the risks have been overcome, if they are not then the risks have been too great for the entrepreneur. While the normal price of commodity tends to be at a fixed point in the long run the actual rate is never at that point, but varies constantly under short period influenced. Similarly although

Demand side.

Margin of
production and
profits.

Point of
equilibrium.

Marginal profits
included in costs.

Variation of
profits.

the marginal rate will tend to be fixed the actual rate as determined by the residue will vary. The marginal rate in different industries will vary with risks. Greater risks will be undertaken only if larger profits are expected. This is similar to there being a general rate of wages for each grade or kind of labour.

The theory of the exploitation of labour has been discussed so often that it is superfluous to enter into it in detail again. It is perfectly clear that if land and capital increase the productivity of labour, organisation increases the productivity of all the factors of production by their proper adjustment to each other. Any defect in such adjustment immediately proves the value of organisation by decreasing production. The organisation is the result of somebody's care and anxiety, who had undertaken the risks. If a return is given to him from the increased production it is not exploitation of labour. Indeed his work increases production and ultimately increases both wages and interest themselves partly because he cheapens prices and partly because there is an actual increase in the wages and interest because of increase in the demand for labour and capital. An unequal labour contract may cause exploitation, and the remedy is an equal contract. But the accidents of the contract cannot vary the scientific principle underlying profits. Indeed profits are even more defensible than interest and rent for here the entrepreneur is actually working himself. He is anxious, moving, and organising as nobody else is, and so his right is quite apparent.

Moreover, it should be remembered that profits are obtained as a residue from the prices and are not a deduction from wages. In some cases they may be nil and yet the wages are paid, which shows that

Not an
exploitation of
labour.

there was no margin in wages which could have been deducted to make the profits. Further as in the case of interest the ownership of profits by particular persons does not affect the theory. Profit an economic return They are a return for a function performed and would be present even if the labourers themselves acted as the entrepreneurs.

The example of joint stock companies is cited as showing that an entrepreneur is not really essential for production and his earnings are a useless drain upon society. But in reality even a joint stock company requires a person who forms the idea of a company and promotes it. As he has not sufficient capital himself he has to borrow it or get it subscribed. What he does is to divide the risks he undertakes into many persons so as to divest himself of the responsibility for the capital invested.

Work of entrepreneur divided.

The shareholders agree with him and subscribe the capital. In this case the functions of an entrepreneur are divided. The shareholders take the risks. They entrust the organisation to the managing agents. The managing agents often charge a salary for management and a percentage for showing profits or carrying the work to success by organising it efficiently. Directors, who are themselves shareholders, are appointed to see that the managing agents are doing their work properly, that the risks are not being increased, but are being minimised. So the entrepreneur is not eliminated, but his work is divided into many parts entrusted to different persons. In this division the personal interest of the promotor is not so great as it would have been if he had himself started his own business. And so he is also a little careless in calculating the risks and forming the scheme. The working of

joint stock companies is not so economical and efficient as of an entrepreneur, the opportunities of swindling are great, and the risks of failure and of losing money are many. Still such companies have become so popular for two reasons. One is that they enable

Why joint stock companies are so popular.

giant works to be undertaken which a single entrepreneur could not have done. The other is that they make it possible even for the small capitalist to engage in business and experience the excitement of running risks and of losing money or earning dividends without themselves engaging in the work.

Like interest profits also tend to fall with the economic progress of society. Better means of information, communications and methods of production decrease the risks of business, while greater educational facilities and efficient training increase the supply of organising ability. All these tend to lower profits. But as in the case of interest this tendency is often counteracted by the appearance of new wants and new industries which increase the demand for entrepreneurs.

The analysis of profits now makes it easy to compare them with rent. Like rent the actual profits are a residue, and depend upon the market conditions and prices. But the rate of profits is more

Rent and profits compared.

amenable to the control of man than rent is, because unlike land the supply of enterprise is a variable quantity. Therefore in reality only the surplus profits are in the nature of rent, and these also are short period or accidental surpluses depending upon market conditions. They may be cut down by the competition of a new supply of entrepreneurs. Further unlike rent there is an element of pure profits, which

influence the determination of the prices in the market by entering into the seller's minimum. It forms a part of the secondary costs, and must be obtained in the long period price. But no part of rent really influences price. Even contract rent, though itself determined by the demand and supply in the land market, is a part of the residue or economic rent. The surplus profits are only a species of a genus which includes rent, and rent elements in other incomes, even in wages and interest. In this respect therefore, profits are like other shares, wages and interest. But they do resemble rent in being a residue left from the price in actual practice with reference to short period prices.

CHAPTER XXIX.

SYSTEM OF DISTRIBUTION.

Much of what has been written about the justification or otherwise of the various kinds of income is not so much a question of economics as of a positive science, for as such it only notes the working of the laws without pronouncing any judgment. But the study of science is for practical purpose and the discussion of the bearings of scientific principles on matters of every day life cannot be altogether avoided, nor is it very desirable to do so. But when we do discuss practical questions, we must always be clear about what we are doing. One of the most important questions agitating the society is the industrial organisation of the present day society and its improvements, and the matter is discussed on the basis of economic theories. This difficult problem is due to the emergence of the wage system as we have. We have had occasion to refer to the evil economic effects of the present day industrial system, and it will be instructive to study in brief the other systems that have been proposed to be substituted for the existing one.

Individualistic system— characteristics and natural laws.	The present individualistic system giving the greatest possible freedom to the individual in shaping his life and work takes its stand upon natural laws. It finds that there are laws embedded in the nature of things. Actions take place not haphazardly but in conformity with natural laws as determined by the inherent nature of things, and these laws being naturally fit for their subjects would keep everything in order, if only man does not interfere. They, therefore, advocate complete
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freedom of competition without any interference by man or state, and then all economic forces will find their level. The laws of demand, supply, and value will determine the value of goods, land, capital and labour, and will keep these values properly adjusted.

Another characteristic of present day society is the institution of private property carrying with it the right of inheritance. Whether right or wrong it has developed through a long course of evolution. Man has been instinctively led to it, and it is difficult to conceive what kind of society it would have been if this institution had not existed.

The advantages of this system are not negligible. Indeed it is this system, which has made such a huge increase of wealth possible, and it is a common defect of all socialistic systems proposed that they decrease the incentive to production. The increase of production has benefitted all classes of society. Even the street beggar no more lives the life of a savage. It has increased man's power

over nature and has made us what we are. Another great advantage is that in this system man is the master of his own destiny. His initiative to work and improve is fully retained. Indeed the progress and increase of prosperity, that we observe, is directly due to this initiative. As he can retain and pass on to his descendants whatever he earns, there is the greatest inducement for him to put forth his utmost power to produce goods without being compelled by another. He will resent compulsion even though it

makes him more productive. In fact, however, the compulsion of his own interest is the most compelling that

Private
property
and inherit-
ance.

Increased
production.

Individual
initiative.

The most com-
pelling motive

could be devised. And this compulsion is neither a devised one, nor one imposed upon him from outside, but is one which springs from inside. Progress of arts and civilization, prompted by his own desires and feelings. He is left free to develop and his innermost being finds abundant expression in the most sublime art and thought. Any society could well be proud of such an achievement.

But while this cannot be gainsaid, it cannot also be denied that there are some very serious defects in the present system. Economic laws are only tendencies. Economic laws are not immutable laws of physical nature nor the obligatory rules of civil law, but they are tendencies which may be counteracted and changed by other tendencies, and one has to be very careful in making general conclusions based on one class of forces only. Thus although free competition may be very good in teaching a person to take care of his own interests but if some disability prevents him from doing so the essential condition of free competition, that the competing parties be not restrained or should not be able to impose on one another but may be on equal footing, is broken and so its working may have to be qualified. Its evils are patent, say that the conditions will correct themselves if left alone, when we actually see the harmful effects of this insistence upon one sided principles. It is the present industrial system which has led to class conflicts by creating Class conflicts, classes with clashing interests like those of debtors and creditors, masters and servants, employers and labourers. The solidarity of society is broken. Ill-feeling and struggle exists every where. And it is quite natural, for Inequality in wealth results in, staggering is the inequality in wealth.

If a rich man suffers from headache, the civil surgeon will be called and Rs. 16/- paid as his fee, but a poor street beggar might be suffering from pneumonia in the open place without as much as a sheet to cover him. Numerous, nay millions of persons in India find it difficult to have full meals while huge amounts of national wealth might be being wasted in feasts and dinners just to satisfy the rich man's whims, and yet the rich man will complain of insufficiency of his funds.

Inequalities of opportunities

Avenues of advance are closed to the poor man. The rich man can become leaders of society, of industry, of anything, simply because of the accident of their birth while inventive genius may die of Idleness. hunger. And these advantages and

privileges are enjoyed without doing anything, while those who produce the necessities of life for the consumption of these rich classes are themselves starving and are working their life out day in and day out. If on one side this system

Pauperism.

has created idleness, on the other it has created pauperism. And who will say that there is no truth in this picture.

This state of things has been produced by the uncompromising insistence upon wealth and free competition to the exclusion of man and his welfare by the old classical school of economists. But the modern conceptions are changing and the propriety of regulating competition is recognised. But though wealth may not be the sole aim of our activities yet its importance cannot be over-rated and any system proposed to be substituted for the present one should not forget that the production of wealth is necessary for the welfare of man and its production should be kept as high as possible without sacrificing the other elements of human comfort.

In opposition to the present are the socialistic systems of distribution. Their general aim is to produce a social organisation with a more equal distribution of wealth and free from the inequalities of the present one. But in the details of their recommendations there is a wide difference from the full recognition of private property and inheritance to the abolition of all property and even of all social institutions and government. A detailed account of all is not possible here, but a brief account of the chief doctrines of the main systems can usefully be studied.

This type has been in existence since very early times, and the form of an ideal society is a favourite theme of speculation. Utopian socialists. Plato planned an ideal society in ancient days, and Sir Thomas More and others also have given a complete account of what a perfect society should be. Their schemes, however, are no more considered important. The new school calls itself Scientific Socialists as opposed to the Utopians. They point out the defects of the present society, but do not venture to suggest what future society is likely to be. They accept the efficacy of scientific laws, and assert that the future society, whatever it be, will emerge from the present one in the natural course of events, and in that society the present evils will not be present: there will be more equal distribution of wealth and some kind of collective ownership. The signs of this are already apparent.

The development of large scale production, trusts, joint stock companies are preparing conditions, when it will be easy to transfer control from the individual

Socialistic
systems.

Utopian
socialists.

Scientific
socialists.

Future
society not
defined but to
emerge from the
present one.

Such tendencies
already apparent.

capitalists to the state and ultimately to the workers without interfering with production, and then the produce of the labourer will go to the labourer, it will not be divided into rents, interest, and profits. The increasing hand of the state in industrial affairs also is a development in the same direction. They welcome the state's taking part in production, like promoting industries and providing conveniences to the whole community as

State
intervention
welcomed
temporarily.

water supply, electricity and undertaking the working of communications by railways and telegraphs, as it accustoms the state to controlling big industrial enterprises, distinct from its political functions. But they welcome it only as a transition for ultimately the present state organised by the capitalist classes must give way to that of the proletariat. State intervention is only

A revolution
to complete
the change.

a means and so for the change a revolution may occur to finally bring in the kingdom of God upon earth. The revolution will not be externally imposed but will follow in accordance with natural laws of evolution itself. It will be a mere completion of the evolution preparing all the time.

State socialists admit that the free competition cry is indefensible and assert that the welfare of the community is of paramount importance. To secure this the state should extend its activities. It is true that the present day organisation of a state was designed for political purposes, but experience and evolution will fit it for industrial ones also. This school has been of much practical benefit in having established institutions of social benefit, in enabling various laws for the protection of labour being passed, in induc-

State
socialists.

ing the state to take up industrial work of great social utility and welfare. It is undoubtedly making it easy to pass the control of such undertakings to the proletariat if such a government comes into power. But they recognise both private property and inheritance, and propose a better distribution by providing the poor with the amenities of life, and other advantages like insurance for old age at the cost of the rich tax payer.

Another class of socialists that recognise private property are the christian socialists. This name was abandoned, however, only after a few years of its use as the school is really a school of co-operation and not of socialism. It recommends a return to rural life, and recommends co-operation as the way to cure the industrial ills of today, otherwise it maintains the present institutions.

Saint Simonism does not abolish private property but rejects inheritance. All professions and trades would be in the gift of the state which will appoint in every individual case successors to take the place of old workers and such workers would be remunerated by the state. No one will be allowed to inherit, but must work to earn his living, the state being the general legatee. There will be inequality of wealth but not idleness, and the inequality also will be according to merit, for the state will appoint only the fit person to the work. It imposes a tremendous work upon the state and presupposes an infallibility and moral goodness in a government which is not easy to find. The powerful magnates are very likely to get inheritance also re-established in course of time.

There is the thorough going socialism of the com-

Communism. munistie school. It would abolish all property and inheritance. All should live in groups like families, and produce in common and share the goods according to their wants. Some have even gone to the length of proposing the abolition of marriage. To the objection that there is no incentive to production when all can satisfy their wants, it is replied that we find it difficult to imagine the altruistic motives that will impel the workers in such an organisation because we ourselves have been accustomed to selfish ones. There will be strict discipline and the force of public opinion in the commune will be such that none will take more than his share, and none will be idle. But most of the attempts to found such societies have ended in failure. It is sometimes thought that the principle of communism is even now applied by the state to those services in which it is difficult to measure the individual benefit, or the price of the individual benefit is too great to be paid by the individuals and so the services cannot be run by private producers. Such are the cases of defence, education, sanitation. The whole society is responsible for them and they are supported from the general taxes. But here the workers do not take according to their wants and private property is not abolished.

Collectivism. Collectivism. does not propose to do away with private property or inheritance altogether, but recommends their abolition in the case of the factors of production, land and capital. Therefore, there will not be any person with independent income. One who inherits, will inherit only consumable wealth, and may use that wealth so long as it lasts, but he will not be able to employ it in production. So there will be no class of capitalists and labourers, creditors and debtors. The means of

production will be owned by the proletariat state and will be managed through the trade unions or directly by the state. Each person will receive a reward according to his work or labour. But this theory of value takes no account of utility and the scarcity of things. The "labour exchanges" started by Robert Owen in England broke down, the labour measure of value failed in practice. Scarce commodities will always have a great value even though they contain small labour. In state management the incentive of private gain is absent and so the work is not so economically done as it is under the direction of an entrepreneur. Another great objection is that in such societies there will be none to save capital for increasing production, for the whole produce will be paid to labour. Collectivism, however, points to the modern collective methods of production as an indication of the coming age. Public utility services like railways, postal and telegraph services, electric supply, water supply and in such other cases there is found often the collective organisation of the state. It may also be desirable in the case of mines where there may be a danger of the national resources being frittered away by reckless private enterprise. But in the case of ordinary manufacture where there is no monopoly and risks are great, official management is likely to suffer from the dilatory formalism..

Guild socialism, Guild socialists propose that all production should be under the direction of guilds of producers engaged in it, while they should be owned by the state. State will represent the consumers whose interests will thus be safe guarded. The guild committees will ensure efficient production while the labourer will be assured a "continuous wage" which he will get in sickness and employment.

Increased resources for this purpose will be available as the other shares of distribution will be eliminated. But such monopolistic production will decrease demand for labour.

Syndicalists advocate the transfer of the control of these collective organisations to the proletariat by direct action. It does not want to wait for the so-called natural evolution till all forms of production become collective and centralised. Some of them may never be so, like the agricultural industry, whose development into a centralised large-scale industry, is limited by the law of diminishing returns. A popular method of direct action is a general strike in all trades, or forcible seizure at an opportune moment. Such attempts were made in Italy and led to the formation of the Fascist's party, which professes to look to the welfare of the nation as a whole, and the movement in Italy of seizing factories collapsed.

Of other systems which are not socialistic but propose a cure for the evil of modern industrial life, cooperation and profit-sharing have already been discussed. There is another system which is ultra-individualistic but abolishes all present institutions, indeed even the society itself. It is called anarchism or nihilism. It considers all regulations as evil and believes that if left to himself, man will live better, more peacefully and happily in a state of nature, than he does now. But the wonder is, why we left that state at all and became man from a savage.

A common difficulty of all socialistic reforms of the social organisations is that they can be successfully worked only when generally adopted by all the countries of the world. For

each one of them does mean a decrease of production in spite of the protestations of its advocates to the contrary. A decrease in productive capacity may place a country at a disadvantage in international competition unless it is a poor country and does not invite exploitation by foreigners. This is recognised in the attempts to organise international organisations of labourers. One such international was founded in 1864 and led a very active life for several years till it died away. Now there is the Russian International for propagating Bolshevich ideas. The collectivists may well point at the League of Nations and allied institutions as another step towards the introduction of collectivist regime.

It is curious, however, that few systems dare abolish private property; but they easily forget that the retention of private property and an inequality of wealth even though it be of consumable wealth only is likely to introduce the other inequalities also in course of time. And those systems that do abolish it, like communism have not been able to give a very successful demonstration of their practice.

CHAPTER XXX.

TAXATION.

There is a fifth sharer in the national income. It is not a factor of production and so does not directly assist in production, but indirectly it does help in production very greatly. This sharer is the state. We have seen how great an importance is attached to political security in saving and investing capital. Indeed for all economic activities to be properly carried out it is necessary that there should be both internal and external peace. An agitated or disturbed condition hinders production. Consequently the state performs a very important function by maintaining peace, and must get a return to enable it to do its work efficiently. It causes additional production and is justified in demanding a return from that additional income.

Economic importance of the state.

What is a tax.

The social dividend theory.

This return is called a tax. It is a compulsory charge which a state realises from its members to find revenues to enable it to perform its functions. This view of the character of taxation is often termed the Social Dividend theory.

It should be noticed, however, that a tax is not necessarily levied from every individual according to the amount of extra production which the state enables him to obtain. The total needs of the state have to be met, and the funds required may be obtained by being distributed over the nationals not according

Characteristics of a tax.

to the benefit each of them enjoys. but according to his capacity to pay. Therefore. the characteristic of a tax is not that it is a payment for a service to the individual. but that it is a contribution by the individual from his income towards the general expenses of the state. But taking the society as a whole the total taxes form a return for the social service performed by the state. Because the individual is taxed not according to his benefit, an element of compulsion enters into the tax. It is a compulsory contribution. a deduction from a person's income for the general benefit of living in a stable society. That is the reason why he tries to evade a tax.

Other forms of state income -- fees. Where the charge levied is for an individual benefit conferred by the state it is called a fee, e. g., court fees, licence fees. The state may

also derive a revenue from its productive enterprises like railways, irrigation, or its quasi-private property like crown lands.

Quasi-private revenue. This income is like that of an individual and forms only a small proportion of the whole revenue. The major part of the revenue consists of the taxes.

The state confers a benefit by allowing producers to produce and the consumers to consume goods properly in peace. "Quid pro quo" or Benefit principle impracticable. The benefit is large for large producers and consumers as their transactions and wealth protected are large. Even the poorest man does derive benefit from state protection, while he may be too poor to pay and the principle of paying taxes according to the benefit derived is found to be impracticable in the end. Moreover it is not very easy to determine the benefit derived by every particular person. It may even be argued that a

poor man benefits much more than others as he is in the greatest need of protection, while the rich may provide themselves with protection with the help of their money.

Therefore, it is laid down that taxes should be proportioned to the ability to pay. A rich man should pay more and a poor man little or nothing. In estimating a person's ability several considerations are to be kept in mind. Some times the property possessed is taken to indicate ability, but in reality the ability to pay a recurring tax can be measured by recurring income only. It may happen that a man may have a large property and a small income. The ordinary measure of ability is income. The larger is the income the greater is the ability to pay. But in this comparison the period and the regularity of income are important. The period should be such that it includes both slack times, if any, and busy seasons. A sufficiently long period should be taken to allow for accidental increase or decrease to find out the normal income. Then it has to be seen whether the income is derived from a permanent source like land or other secured investment, or it is obtained from personal labour or a temporary source. In the former case the person has no anxiety about future provision which in the latter he has to make it. Consequently the utility of income to him is greater than to one who has an independent income. Therefore, his ability to pay taxes is not so great.

Then it should be noted whether the income also contains any element of capital returning, as it does in the form of capital.

annuities or annual payments to pay off a debt. If capital also is taxed there is likely to be a double taxation, because the capital which is now received and taxed was probably already taxed when it was being saved and so was first received as income.

Another very important consideration is the family expenditure. A man with a large family cannot have the same ability to pay as a man with a small family, although their incomes may be equal. Sometimes ability is measured by consumption, not the increased consumption on account of a large family, but it is rather the quality of consumption. Thus a person who consumes articles of luxury to a large extent has evidently a larger ability to pay than one who consumes only necessities.

Then there is the consideration, whether the income contains any element of surplus or unearned increment. Evidently an income which has got such a surplus is more able to pay than an income which is the result of hard work. It is only when all such considerations are taken into account that the ability of a person to pay taxes can be calculated. But the taxes need not absorb the whole of this ability, otherwise the rich will be taxed very heavily indeed, and all saving of capital will be stopped. Therefore, another principle works at the same time.

And that is the "equality of sacrifice." Although it is impracticable to tax according to benefit, but it can certainly be arranged that no person should be asked to pay more than his share of sacrifice. The same sum will represent a larger sacrifice to a relatively poor man than it does to a rich man, and so for the rich man.

the tax has to be more in amount to represent the same extent of sacrifice. While the principle of equality requires a larger sum from the wealthy man, the principle of ability indicates whether he can afford that larger sum or not.

Adam Smith laid down four canons of taxation, of which this "equality of sacrifice" according to ability is the first and is often termed the "ethical precept." The other three are certainty, convenience and economy and are called "administrative precepts."

When in calculating ability the considerations noted above are taken into account, then it may happen that the practical result of the equality and ability principles may coincide, because then the taxes will be on net incomes, and the sacrifice will increase or decrease inversely as the income increases or decreases, while the ability will increase with the income. It should be noted that the sacrifice and ability do not move quite in a mathematical proportion. The rate of increase of

ability or of decrease of sacrifice is greater, the higher is the income under consideration. This is due to the working of the law of diminishing utility. The higher the income the smaller will be the utility of money to the person receiving it, and so the greater will be the increase in his ability to pay and the smaller will be the sacrifice represented by that payment. This is why the income tax rises at higher rates on the larger incomes than on the smaller ones.

Sometimes it happens that the principle of equality does not coincide with that of ability. A person may actually be made to undergo a larger sacrifice

Canons
of taxation.

Equality
and ability
may coincide.

Working of
diminishing
utility.

A means of
social equality.

than other persons and be asked to pay more than his ability on account of his income being much higher than that of others, so as to put a smaller sacrifice on the poor persons. This is the social principle of taxation. When such a tax is used for providing benefits to the poorer classes like city parks, free education, schemes of unemployment and old age insurance and such other things, then the tax is used as a means of decreasing social inequality of wealth. It is taken from the wealthy person and is used to help the poor and provide him with things which he himself could not have procured.

The opposite is the view of those who advocate that the only aim of taxation should be to provide revenue to the state and all other considerations should be disregarded. This view requires that the taxes should create the least amount of opposition. Indirect taxes are based upon this principle and the modern financier tries to follow the path of least resistance.

An important consideration in deciding upon a tax is that it should be certain and regular. The tax payer should know clearly what he has to pay and the time and manner of payment. Uncertainty is very vexatious and it causes greater inconvenience and trouble to the taxpayer than the corresponding gain to the state. If the tax is realised haphazardly and irregularly then also it is likely to be very troublesome. One does not like to be questioned at any and every time by the tax collector and prefers that the time of his visit be well known and fixed. Moreover irregularity is likely to bring a smaller amount to the state also, for the tax payer may be asked to pay when he is not prepared to pay it ; if on the other

hand he knows the proper time, he will keep himself ready. Not only to the payer but there should be a certainty to the state also, Certainty to the state. which should be able to estimate fairly and accurately what the tax is expected to yield to it. Then alone the state will be able to decide upon its financial programme.

This introduces another principle that the tax should be convenient or that it should be Convenience. realised at a time when it is convenient to pay it. When a man receives his income he can easily pay all charges, but if at a later date, when he has already spent a large part of it in paying his bills, he is asked to pay a tax he may feel it as a hardship. Indirect taxes or taxes on commodities are generally convenient as they are realised in a way which is not at all felt by the payer.

A tax can be examined from various points of views. So far the standpoint of the Individual's point of view. individual or the taxpayer has been considered. But there are two other parties to be kept in mind, the state and the community. The state also has to ask State standpoint— itself many questions before it imposes a tax. Economy. The first question that it asks is whether the tax is such as can be easily realised without much expense. The aim always should be to put in the treasury as much as is taken from the taxpayer. If the expense of collection is large then the taxpayer is taxed more than the gain to the state, and the deficiency in the state funds will be made up by the imposition of another tax. If a tax on commodities is such that its proportion on one unit of a commodity is a fraction of the usual fractional

price then the price will be raised by the full fraction and the consumer will pay more than will be received by the state. Suppose the proportion of a tax on a bundle of tea comes to be $\frac{1}{2}$ a pice then its price will be raised by one full pice. Such a tax is not economical. Expenses of collection are small where the subject of the tax can be easily fixed and valued. Such are the duties on transfers of property, the death duties, and duties on the consumption of such goods as diamonds and other precious stones. If one is asked to declare the value of his gems one is likely to exaggerate, for their greater value means a higher social position and the tax is likely to be easily collected without the necessity of a very detailed enquiry.

Then it should be seen whether the tax is practicable or not, whether it imposes too great a hardship on any particular class, or whether it is likely to be realised at all. A tax on some undeterminable vague object will not bring much, nor will a tax on something of small total value be of much use. It should be convenient to the state or be easily realisable without creating much discontent and should bring in large funds. If it does not satisfy these conditions then it may be inadvisable to impose it.

Thirdly a tax should not be so heavy as to dry up the source of revenue itself. The fable of the hen of the golden egg is likely to be repeated. It is better to take one egg every day than to kill the hen to get all eggs at once. For example when a tax is imposed on a commodity it should not be so high as to affect the demand for that commodity seriously, for with a decrease in its demand the tax also is likely to bring in small returns. For this

reason a tax on commodities of inelastic demand is more useful than on those of a flexible demand. But at the same time a tax should be Productivity. productive or should bring in large revenues. Taxes which are not such may be uneconomical on account of their expenses of collection. One productive tax is better than several unproductive ones.

The state has to keep in mind the political effects of a proposed tax ; on what class of Political effects. persons it is likely to fall, whether it is likely to create some disturbance which may make the position of the state difficult, or whether it is likely to bring it in conflict with other political bodies ,as it is in the case of protective duties when there is mutual retaliation. In such cases the effects likely to be produced by such conflict and retaliation should be carefully examined.

Another condition of a successful system of taxation from the state's standpoint is the Elasticity. elasticity of the system, so that the total yield of the taxes may be easily increased at a short notice and without much extra-expense. Sometimes a state is involved in war, when it wants extra funds and wants them immediately. If a new tax is imposed, a machinery for its collection will have to be devised, and all this will take time. The old taxes should be such that an increase in their rate may increase their yield at once. In such cases it is not advisable to raise a personal tax falling generally on the community, for the conciliatory mood of the people is important to keep the government free from the anxiety of internal disturbance in war time, although this also may have to be done later with an appeal to the patriotism of the people. Ordinarily taxes on commodities specially the stimulants, and large incomes.

lend themselves very well for increase as they increase with the increase of wealth and population. The former are paid by the general community but their payment is not felt so acutely while the latter are paid by those who are able to pay.

The community's stand-point presents such questions for consideration as the impact and incidence of a tax system and its effect on the capital and production of the community. This is a very wide subject requiring careful examination. All that will be possible here, will be to illustrate its principles by a few important examples. But before doing so we should first know the various kinds of taxes.

A direct tax is that which is imposed directly upon the person from whom it is realised. Such is the case with poll-tax, income-tax, duties on transfers of property or on inheritance, as the succession certificate fee. A poll-tax is a tax on the person of a member of state. It has generally fallen into disuse. Unearned increment taxes also are realised directly from the person who receives it, such is the case

with the land tax. Indirect tax is that which is not imposed directly upon the person from whom it is realised, but is placed upon the commodities which he consumes so that he is charged that tax in the price he pays for them. Such taxes are octroi realised by a municipality on goods entering its limits. Customs and excise are other varieties. Customs are realised at the ports from exports and imports, while excise duties are realised

from goods produced and consumed internally. The advantage of an indirect tax is that it is not felt by the person who pays it and so is easily realised, while a direct tax is actually

Convenience. felt and tends to create opposition. It has another advantage that an indirect tax can be used even to make the poorest to contribute something to the maintenance of the state. Such is the case with the salt tax. Salt is used even by the poorest person and a tax on it will increase its price and so the tax will be paid by all consumers of salt. But salt is used in such small quantities

Equity. that the payment is not likely to be heavy unless the tax is very large. Moreover a small contribution by the poor in this form theoretically increases the right of the state to realise more from the rich to readjust taxation to the principle of equality of sacrifice.

Elasticity, and social benefit. taxes increase with the increase of wealth and population, for then the consumption of goods also increases. Moreover as they are not felt by the payer their yield can be easily increased if commodities of general demand are taxed. Taxes on such commodities as opium and liquor confer social benefit by decreasing the consumption of such goods.

On the other hand an indirect tax is not certain and as its rate is proportionate to the Disadvantages. goods it entails unequal sacrifices on the rich and the poor. It is also uneconomical so far as it leads to a larger increase in the price than by the amount of the tax. Another disadvantage of indirect taxation is that it passes unnoticed. The tax payer does not know that he is paying the tax and so he asks no questions as to how it is used and why it is demanded by the government. In the case of a direct tax the taxpayer knows when he pays the tax and is anxious to know whether the government really needs it, and whether what he is paying is properly utilized. Such public criticism.

keeps a check upon the government.

A direct-tax, on the other hand, is certain, economical, equitable, and elastic. It imposes equal sacrifice if progressive. Its amount is certain and well known and does not put money into the pockets of a third person like the dealer. But it is also inconvenient as it requires many formalities to be gone through, often creates opposition and puts a premium on dishonesty as the payers try to evade it.

The tendency in the beginning is to increase the indirect taxes and abolish the direct ones. The method of taxation that occurs most easily to the primitive financier is a direct tax. Such was the poll tax or tax per capita. But

when the indirect method is discovered its convenience naturally brings it into great use and the old system tends to die out. But as the community progresses in political education the advantage of the direct system is observed and it is introduced again. In reality in a well balanced system both kinds of taxes are necessary. The indirect tax

reaches the poorer classes easily. A direct tax in their case would have been very expensive to collect and would have created great opposition, while in the case of the rich an indirect tax would have been insufficient to tax them according to their ability. So while an indirect tax is necessary for the former a direct tax is required for the latter. But the rich person pays not only the direct taxes but also the indirect taxes. What is necessary is that the effect of the whole system of taxes imposed on him should be equitable which is secured by a combination of direct and indirect taxes.

Another distinction is between personal and specific taxes. Personal taxes are those which relate to the person of a member of the state, such as the poll tax and incometax. A personal tax is also a direct tax. Specific taxes are those which are calculated according to the quantity or value of commodities. When they are calculated on the quantity they are called "by bulk" or "pro rata" and when on the value of commodities, they are called "advalorem" or by value. Both of these varieties occur in the ordinary octroi duties of the municipalities and in the customs. Specific taxes may be direct as well as indirect. When they are realised from the sellers of the commodities they are indirect, as is the case with octroi, and customs duties. When they are realised from the users of the commodities they are direct taxes, such as a licence for keeping dogs or for firearms. Sometimes specific taxes are imposed on articles of luxury. The object is two fold. Firstly such a tax tries to satisfy the principle of ability and balances any deficiency that might have remained in the rate of the direct incometax, for the incometax also cannot be increased indefinitely. Secondly a tax on luxury is a tax on the consumption of goods whose production is not of so great importance socially as the production of necessities is, and therefore even if the tax decreases the production of that commodity slightly, it does not do much social harm but rather frees that productive energy to be used in better work.

A proportional tax is that which is calculated on the proportion of the value of the subject taxed. It increases in proportion and progressive.

tion to such value. Such is the case with duties on inheritance or transfer of property. A progressive tax rises at a greater rate than the rate of increase of the subject taxed as is done in the case of income-tax. It is based, as has been explained above, on the principle of diminishing utility and equality of sacrifice.

A progressive tax is degressive when the rate of progression of the tax is not so great as the proportional sacrifice of a higher income requires but is less than that. In such cases it may be balanced by luxury or consumption taxes or the margin may be left to be used in case of urgent necessity. A tax is regressive when it taxes smaller incomes at a higher rate than the larger incomes, because such taxation brings in large funds, but the palpable inequity of such a system makes it of rare application.

By the impact of a tax is meant the party from whom the tax is realised. It is different from the incidence of a tax which means the party on whom the real burden of a tax falls. These may coincide or may be different. In the case of

income tax the tax is borne by the person who pays it, whereas in the case of octroi duties the tax is paid by the merchant but the merchant recoups

himself by increasing the price by the amount of the tax : and so the person who really bears the burden is the consumer. This process of

changing the burden of the tax from the person who pays it to some other person is called shifting. When the dealer in certain goods shifts a tax to consumers it is called shifting forward. If there be a direct tax on consumption and the consumer decreases

his demand for the goods making the producer lower his prices then he is said to shift backward. It is a general rule that any person who pays a tax tries to shift it to the shoulders of others if he can do so. But sometimes it is not possible, and sometimes it can be done only in part. It is important for the financier to know where the tax really falls, then alone he will be able to estimate the economic and other effects of a tax.

It is maintained by some that every tax is so shifted backward and forward that it ultimately reaches all sections of the community making them all contribute according to his ability equitably, entailing equal sacrifice for all. It is true that a tax tends to be diffused over a wide area but the extent of diffusion differs. While shifting is a fact it is wrong to assume that the sacrifice is made equal by this shifting. If this were so, it would not be necessary to have a delicately balanced tax system of direct and indirect taxes, which taxes different persons differently. Only one tax would have been sufficient.

As a rule direct taxes fall upon the persons who pay them. A person who is paying an incometax cannot easily shift it to another. He is getting a fixed salary and it is not in his power to demand an increased salary because he pays the tax. Sometimes one may increase the value of his services or goods and throw part of the burden on others but generally it will be borne by the person who pays. If he is an industrialist then he would not like to reduce his income by increasing the price of his goods as he will still have to pay the tax on the income he gets. He would rather try to increase his income

Diffusion
theory.

Incidence of
direct taxes *e.g.*,
of incometax.

if he can do so by making economies in the cost of production of his goods and by lowering the prices, for then he will have a larger income to pay from; and his old income will be maintained. This is the

reason why a tax on the profits from
 Tax on monopoly tends to fall on the monopolist. for he has already fixed his price at a point where it yields him the greatest income. Any increase or decrease in it would lower the total income and so he can not transfer the burden to the consumers by increasing the prices. The same

is the case of taxes on unearned
 On unearned increments, increments or economic surpluses, for those surpluses result from the

conditions of the market and a tax on receipts cannot be shifted to another. A tax on economic rent will not increase the prices, for such rent does not enter the calculation of the cost of production and so a decrease of the income by the tax will not affect prices. The case

is different, however, with direct taxes
 On consumption on consumption of goods. If the tax
 of goods. is on some necessary consumption it will be borne by the consumer. If

the goods are not necessities then the tax will be shifted. Take a licence for fire arms. If the rate of the licence is increased, it will reduce the demand for fire arms to some extent, this will lower the price and some of the tax will be shifted backward to the producer, for at a lower price only the old demand will be maintained. The extent of this shifting depends upon the kind of demand for the goods. In

the case of diamonds and precious
 On diamonds. stones the tax will be borne by the users themselves. A tax levied on houses to be paid by the occupiers will tend to be shifted partly to the owners if the demand for

Tax on occupiers of houses. houses in the locality is not great. The rentee calculates what he will have to pay as tax in addition to the rent.

But it falls on the occupier alone if the demand for houses is great for then the rentee must have a house, and he cannot decrease the quantity of the house to save a part of the tax. He may search for a smaller house, but if the demand for houses be great, he may not take the risk and may agree to pay the tax and the rent both.

Incidence of indirect taxes. If the tax is levied on the owner of the house then it tends to be shifted on to the occupiers unless the demand for houses is very small indeed. As a

rule, indirect taxes are shifted to others as they are meant to be. Indirect taxes are imposed upon certain persons so that the person who really bears the burden may not feel it; the intention has all along been that the person who pays, may shift them to

those who are really intended to be taxed. The extent of shifting depends upon the kind of demand for the goods and on the availability of goods or tolerable substitutes. If the demand for the commodity taxed is rigid, an increase in its price will not lower the

demand and so the tax will be easily shifted to the purchasers or consumers. If the demand is elastic, then the increase in the price is likely to lower the demand and decrease the income of the producer.

To keep up his production he may not increase the prices by the full amount of the tax and it may partly be borne by the producer and partly by the consumer. The division depends upon

Shifting to other parties. the degree of elasticity of the demand.

Generally no demand is either perfectly rigid or perfectly elastic. Moreover, when the demand

for a commodity is lowered a part of the tax falls also on the factors used in producing that commodity

provided that those factors are unable to find increased work elsewhere, and so their value also is decreased by the lowering of the demand. Such remote

effects of a tax are called its secondary reactions while the effects which are produced in the first instance are

called primary reactions. Octroi duties generally fall wholly on the consumers.

In the case of export duties if there be a monopoly in the produce, no good substitute is available and the demand is inelastic then the duty will fall wholly on the foreign consumer, and if these conditions are satisfied only partly then there will be a division of the incidence between the exporter and the consumer.

Import duties tend to be governed by the same principles of demand. If there be a monopoly of consumption of that article in the country then an import duty will benefit the country at the expense of the foreigner, but this is seldom the case. Generally an import duty is borne mostly by the home consumer, and partly by the foreign producer. The division depends upon the elasticity of the demand of the importing country as well as on the proportion of the demand to the total output of that commodity in the producing country. If the total output is great and the importing country's demand is relatively small, then the burden upon the producer will not be great. An increase in the price, even if it lowers the demand for his produce in the importing country, will not

harm him much. He might withdraw some of his productive energies from that commodity and employ it in producing others and thus throw a greater part of the burden on the home consumer by decreasing the supply. He may try to distribute his own burden by a slight increase in the prices of his other products or on that portion of his produce which he exports to countries other than the taxing country. This depends on the market conditions, and if he is able to do so then part of the tax may fall on other

Protective
duties.

countries. But generally the burden of import duties falls on the home consumer. It is specially so in the case of protective duties which have to be so high as to make it unprofitable for the foreign producer to sell at a lower price than the one at which it is desired to be sold, so as to give protection to the home manufacturers, and so there will be little inducement to lower prices. If prices are still lowered duties may be further increased. Consequently the price will be raised by the amount of the duty and the consumers will suffer.

The home production may, however sell, at a lower price and so the loss to the consumers may not be so great. But it should be remembered that a protective duty high enough to kill import trade will cause no gain to the treasury. One

Import duties
may benefit
agricultural
country.

interesting result may follow. An import duty by restricting imports will also tend to restrict exports, for now less exports will be required to balance the trade. If the country is agricultural and its exports consist of agricultural produce then a decrease of exports will lead to a lowering of the demand for that produce and a lowering of the price of food grains in the country.

When the imports taxed are necessities the effect is regressive, as the burden falls more heavily on smaller incomes than on the larger ones, because a larger proportion of smaller incomes is spent on necessities than of the larger incomes. Frequent changes of customs duties interfere with trade and so they are not elastic ; and as the amount of international trade fluctuates they are not certain. They will yield very little in times of depression when the state is likely to want extra funds.

This brings us to another problem. Agricultural produce follows the law of diminishing returns. A decrease in its demand will cause a decrease of the supply in course of time and the production at the margin will be stopped. As a result the cost of production will decrease as the most costly part of production is not produced.

If a tax is levied on agricultural produce, then although the demand for it is more or less rigid, still there will be some decrease in its demand owing to the rise of prices. So far as it does so, it will lower the cost. The rise in the price will not be by the amount of the tax, but part of the tax will be absorbed by the cost becoming lower than before. In the case of the commodities following the law of increasing returns the case is different. There a decrease in demand will raise the cost of production and the rise in the price will be equal to the tax plus the increase in the cost of production. Therefore, the total cost of the tax to the community will be greater than the gain to the state. Generally in accordance with the principles enunciated above a tax on agricultural produce will tend to be shifted on to the consumers.

On rent. but a tax on rent or income from land will tend to remain on the proprietor who receives rent. In the case of a house also if the tax is on the rent paid, it will fall on the proprietor, but if it is on the house, it will tend to be shifted to the occupier.

On house or its rent.

Excise duties are taxes on home production, they may be imposed either to counteract any protective effect of import duties as was the case with the cotton excise duties in India, or for purposes of revenue as a tax on agricultural produce, or for regulating the production of intoxicants like wine and opium. When they are imposed to counteract protective effect of import duties, the import duty is imposed for revenue and not for protection, and so there is a large yield from the import duties, but as the excise duty keeps down the home production in competition, its yield may not be large. Its incidence is partly on the consumer and partly on the producer for the foreign competition will not allow the price to be raised so high as to transfer the whole to the consumer. In the case of intoxicants so far as there is a restrictive effect, the duty will yield less, but even then it is a social gain. A lower duty might increase the yield, but it would not decrease the consumption of liquor, which on the whole is socially harmful. A duty on intoxicants is likely to fall mostly on the consumers, for those who are addicted to them would rather pay a high price than go without them.

A tax on income from land is specially harmful in one way. It reduces the capital value of land. When the land is sold after the imposition of the tax, the purchaser capitalises the value of the tax and deducts it from

Amortization.

the total value, or, which is the same, he calculates the value of land by capitalising the income from land which remains after deducting the tax. This is a matter of every day experience in India. When land changes hands, the land revenue is deducted from the yearly rental and then the capital value is calculated. This is a kind of capital levy. But it acts as a hardship only when first imposed for there after it is allowed for in all transactions. This is called amortization.

A levy on capital when it is in addition to the tax on income may sometimes be very inconvenient. A tax on income also reduces the wealth available to be saved as capital and so decreases capital, but it may be said that the state protection, for which the tax is a return, helps production and increases the income and so there is no net loss, and there is rather a net gain, because if the state protection were not available, extensive production would have been impossible. But if there is a tax levied on the capital already saved or about to be saved then it may lead to a decrease of capital and a loss to production. Sometimes it may induce increased savings to make up the deficiency but generally it is likely to have a discouraging affect. Its intensity is not so great if the appropriation or the levy is to come at a distant time or after death, for human nature counts future comforts as well as future discomforts at a lower rate than the present ones. That is why succession duties do not decrease savings.

From this point of view special duties such as succession or inheritance duties and duties on gifts are socially very useful. They do not decrease savings, and

Capital levy a loss to production.
Special duties or windfall taxation.

are not onerous on those who pay, for they themselves are getting new wealth, a "windfall", for which they did not labour.

Another important fact to remember is that the tendency of a tax is to induce the Effect of local taxes or rates. taxed to try to avoid it. If there are local taxes, generally called "rates" to distinguish them from national taxes, which can be avoided by moving out of the sphere of that tax they will be so avoided, and the subject will go out of the jurisdiction of the tax. This may injure the production of that locality. If a capital levy is locally raised it will induce capital to go out of that place. If there is a local income-tax then the income of the inhabitants will tend to collect and be invested abroad, and those with large incomes may themselves go out unless their income is derived from something fixed in that locality. Therefore, the general rule is that rates or local taxes should

be such as are attached to land or to Rates attached to land or local habitation. local consumers like land-tax, house-tax, octroi. Taxes like income-tax

and customs should be uniform for a nation or country. It is true that here also the comparison might be made with other countries. but mobility of man is hindered by social and national associations, and so things will not move out of their natural sphere without a very strong cause. That is why nations and countries still form separate economic groups, and why even locally some direct taxes and contributions may be raised without making the inhabitants leave the locality. But local taxes should never be imposed on capital or capitalistic production, for capital being very mobile will try to concentrate in the most profitable places. Another difference is that local taxes are raised more

Importance of benefit in rates. on the benefit principle than the national taxes can be. Local bodies do not undertake very expensive common services like defence. The money is raised and spent in the locality itself for the benefit of the inhabitants. House property represents in a fair way the benefit received by the inhabitant from the activities of the Local Body or Municipality and is often adopted as the basis of taxation. Local taxes, or rates, as they are technically called, are not uniform like central taxes, but differ with different localities. The total amount required for local expenditure is first calculated and is then spread over the rateable capacity of the locality. This capacity is generally estimated as a proportion of the rental value of the immoveable property existing there.

BOOK V.

CHAPTER XXXI.

CONSUMPTION OR SATISFACTION OF WANTS.

PRINCIPLES OF CONSUMPTION.

Now we come to the primary department of Economics, the aim and object of all our economic activities. When the goods are produced, their exchange value is received, our share in the sale proceeds is determined, then comes the question on what principles is that share applied to the satisfaction of wants, and what is the affect on the social welfare of that application. This is the province of consumption and it may be considered under two sections, one of the principles of consumption and the other the problems relating to it.

Consumption may be reproductive or unproductive.

Reproductive and productive. Goods are said to be reproductively consumed when they produce new goods as a result of their consumption.

Such is the case in industries, where raw materials are used up in producing finished goods. This is properly the subject of production. We are concerned here with the other kind the unproductive consumption, or consumption of goods effected not for the purpose of producing anything but purely for satisfying the wants. It may be argued that what is eaten and otherwise consumed by man is also productive in as much as it increases his efficiency for producing more. This is quite true but we should remember

that he produces for consuming and does not consume for producing, that even if he did not produce he would certainly consume as the idle classes and the beggars do: further that in an ordinary man's consumption also there are many items which merely satisfy his whim and fancies and have little affect upon his efficiency. Indeed a man may often consume what lowers his efficiency simply because he likes to consume it. The increase of efficiency on account of consumption is an accident and not the purpose of consumption. A prudent man will no doubt consume things which may make him more efficient for future so that he may be able to continue the satisfaction of his wants and not because his aim is production. This is entirely different from that condition of things where goods are consumed simply for reproduction, where they would not be consumed if they did not so reproduce. As said above the raw materials used in a productive process are an example. The same idea is expressed in other words in the

Direct and in-
direct con-
sumption.

distinction of the direct and the indirect consumption. When any goods or services satisfy our wants by themselves they are said to satisfy directly.

When they satisfy by producing other goods, which are actually used in consumption, then they are said to satisfy indirectly, *i. e.*, through the medium of other goods so produced. In the former case the directly satisfying goods are called "consumption goods", and the goods which satisfy our wants indirectly are called "production goods".

Consumption
and production
goods.

Consumption or satisfaction of wants is said to be immediate when the goods are used, as they are for satisfying wants, as we do when we eat food or

Immediate and
postponed
consumption.

put on clothing or live in a house. It is said to be "postponed", when we do not use the goods when we get them but keep them to be used at some other time. We may keep goods or actual commodities for use at a future time as we often keep certain clothes, fruits, stationary, or we may keep money to be applied to purchase goods that we may want in the future. In the former case our future wants are already determined in respect of those goods, in the latter case we keep a provision to

satisfy all kinds of our wants generally.
 Saving. in the form of the general purchasing power money. This latter process is called saving. Saving may be in the form of goods also but the essential feature about it is that the want to be satisfied by it is not already determined but it is a general provision for the future. We may thus save wheat, or we may keep this provision in the form of ornaments, or buildings. So far as they satisfy existing wants they help direct satisfaction, and they will perform their function as saving when they are exchanged for other goods we want, or yield us a power to purchase goods in the future.

When this saving is used not to purchase goods for directly satisfying wants but is
 Investment. used in producing further wealth, it becomes capital and is said to have been invested. Then it yields us an income, an additional satisfaction besides what could have been purchased by the use of the savings themselves. Purchasing of consumption goods only with the savings will
 Wasteful and prudent use. be comparatively wasteful as it will not get out of our goods all the utilities possible, while investment does so. When savings are so invested they become "production goods" or capital and satisfy our wants indirectly by

producing other "consumption goods".

Consumption of goods may be destructive or usufructuary. When the goods are used up in one process of satisfaction, it is said to be destructive, as when we eat food or drink water. It is usufructuary when the same goods satisfy our wants a number of times like a book, a house. Usufructuary consumption is good economically as it saves us from the necessity of producing every time, but all goods are not durable and so are unable to give us usufructuary consumption, and that is the reason why continuous production is required to satisfy our other wants which require perishable goods, as food materials.

Economics does not enter into a psychological discussion of the mental nature and constituents of wants. It simply notes that a man feels a deficiency in his possessions of something which he requires to satisfy some of his desires, and he is said to want that something. As the science deals with man in general acting in society it does not take note of any peculiarities in the wants of a particular individual but deals with the common wants which men often feel, and the principles of their satisfaction. It pronounces no judgment as to the moral excellence of those wants, but it does note their effect on the productive energies of society and on the general economic welfare.

But in Economics a mere wish is not called a want; a wish may not be sufficiently intense to lead to an economic activity on the part of the person who feels it, and then such a wish can not be the subject of economic enquiry. It is only when the wish is so compelling as to make the person willing to undertake

some sacrifice to satisfy it that it becomes an effective want. Then alone he will be engaged in producing something for such satisfaction and then consuming the goods produced.

Wants may be natural or acquired. Those that are due to our feeling some physiological necessity are natural wants, while those that are developed by our mental tastes and social surroundings are called acquired wants. The latter, depend upon our having some new experience and our becoming impressed by it. Such wants are created by advertisements, by the show windows of shops, by our seeing the various standards of living. In fact in our natural wants also the goods that we use to satisfy them are chosen very much according to these acquired tastes, and in course of time they become the forms of the natural wants themselves. Indeed the actual form in which

Acquired wants only develop the variety of satisfaction. a natural want is satisfied is generally one of these acquired ones. In reality the acquired wants do not create new physiological wants but only develop the variety of satisfaction. Take for example recreation. It may be found in a talk with the children, in a reading room, in the society of friends, in a theatre or a cinema. Before cinemas or theatres were established, there could have been no want for them. It is an acquired want, but it is a development of the old want for recreation in a new form.

Natural wants may be primary or secondary. They are primary when they are those that concern the first necessities of life which all men feel and require.

Those wants are secondary of which a man thinks about when he finds his primary wants are satisfied. The division is not a rigid one. It may

slightly differ in different conditions. Even the secondary wants become as forceful as the primary ones by force of habit. Still a certain difference and sequence is maintained, and as we shall see, it comes out clearly in the application of our increased income to the different wants. Examples

Examples. of primary wants are those for food, shelter, defence, fuel and ornament.

Religion, clothing, recreation and art, social intercourse and transport, instruction and comfort are examples of secondary wants. It will be noticed that clothing is placed after even ornament and religion. It may appear to be wonderful to us who are so accustomed

Ornament and clothing. to clothing that it has become a primary want with us, but it does appear to be the case that man liked

ornament before he wanted clothing. Even naked savages adorn their bodies with figures and symbols, use shells and bones for ornamenting themselves. It is probable that clothing itself was developed as a form of ornament. Even now we so often clothe ourselves not because we want much protection but because we feel ashamed in going naked. Similarly religion comes before clothing, because taking religion in a broad way, some kind of it is a necessity for human mind. Just as food is necessary

Religion. to satisfy his physical hunger, religion is required to pacify his mental longing to know the secret of the world of his experience. He must know his position in the scheme of nature so that he may act accordingly. He need not be a philosopher for this purpose, but his needs must be satisfied that the moving unseen powers of the world, whatever he might consider them to be are not antagonistic to him. Every Savage will have his gods and goddesses. Even he who decries all religion

has his own scheme of things of nature, which determines his place and functions. Religion is secondary because it appears when man begins to think and understand ; it is not a physiological want like that

of food or shelter which even an animal has. The development of art is connected with recreation. It is

when one has leisure to enjoy himself that he develops his powers of inventing or making things which please him and stimulate his aesthetic capacities. The increase of leisure and recreation is attended with social intercourse which makes man feel the necessity of transport. Then comes a desire to learn strange things, new things, which the other persons appear to know or to find out the mystery behind

the mundane world. Lastly the comfort, which varies greatly with different persons and classes of society, appears. Every thing which pleases a man, gives his mind repose, saves it from the trouble of want, and so increases his efficiency, the decrease of which will decrease his efficiency, is comfort.

The first characteristic of wants is that they exist

in systems of wants. A man, who wants food, wants several things by way of food and drink, which jointly satisfy the craving of his hunger. If

a man wants clothing, he requires a cap, a coat, a shoe and other such things. Another

important characteristic is that wants are unlimited but the forms in which

they may be satisfied are innumerable and so wants for various kinds of goods are unlimited. We cannot always say that if a new form of goods were brought to our notice we would not begin to want it. We may have satisfied our want with one kind of

goods but when another appears which appeals to us we often take it. If we do not use it then we keep it for future use. It is a common experience that sometimes people take new delicacies even when they are not hungry or their hunger is satisfied. Our wants are always changing in form and to this change there is no limit.

But while wants in general are unlimited, the intensity of a particular want is limited. There is a physiological limit of satiety of hunger going beyond which becomes painful, and one will not agree to suffer this pain even if the most delicious things were presented to him. What is tasteful at one time becomes a torture if continued beyond a certain limit. It is upon this principle that the law of diminishing utility is based. The utility of the thing used decreases with the decrease in the intensity of the want till it is zero. On this is founded the conception of marginal utility and of marginal values, which, we have seen, applies throughout in the theories of value in all the departments of Economics. Sometimes it happens that in case of certain wants the acquisition of a commodity increases the desire for more of it as it whets the taste. This may happen in the case of liquors. Another striking example is gambling. A desire for ornaments also can scarcely be ever completely satisfied. The desire for social distinction is another. For a man who wants a pair of horses the possession of one increases his desire for another similar one. For collector of stamps or antiquities may value the later acquisitions required to complete his series more than his earlier collections and so may be willing to pay

more. But the physiological limit does assert itself sooner or later. Even the gambler does leave the table at last. Secondly the want may go on increasing for different forms of satisfaction, but for the same form of satisfaction the increase in the acquisition of goods does generally decrease the utility of the further supply. It is

Basis of advertisement. true, however, that for a time the desire for a new commodity is increased on our first coming in contact with it. This element of truth is the basis of advertisement which tries to create new wants by bringing new things to our notice.

The above must have made it clear that the same want may be satisfied with various goods, and that there is a limit of satiety to those wants. Consequently the wants for various goods which satisfy the same physiological want or necessity compete with each other for providing this satisfaction, and we choose those which we like best or which please us most, or have the greatest utility for us. But when different goods satisfy different physiological wants, or necessities they do not compete but are complementary. By satisfying its own particular want each increases our total satisfaction. For example a

Dis-similar wants are complementary. cinema and a reading room may compete with each other in trying to satisfy our want of recreation, but clothing will be necessary for both. Without clothing we may not go to either and even the want for recreation may remain unsatisfied. By satisfying different wants each completes what the others have left unsatisfied, and thus the total satisfaction is increased.

The principle of complementary wants gives rise

Law of maximum satisfaction to the law of maximum satisfaction. We apply our resources not to the satisfaction of one want alone but to all our different wants in such a way that we obtain the greatest satisfaction that is possible with the resources at our disposal. If we do not do so, there is a wastage. The reason why we act in this way is that our wants are limited in intensity. When we begin to spend we first take those things which we want most or which have the greatest utility, and then those things which satisfy us in the second degree, till at last the utilities of the final instalments of all goods we use are as nearly equal as possible. Then alone we can get the maximum satisfaction. This is called the "law of equi-marginal utility". If the utility of the final instalment of one commodity is greater than that of another, then we shall first take that commodity and will spend in the final instalments only the remaining part of the money. In this way we shall derive the greatest possible consumer's surplus from one income. Take an example. Suppose for A the utility of a table is 8 rupees, but he can purchase it for Rs. 4/-. In the market, a chair has a utility of Rs. 7/- and can be got for Rs. 3/8/-. Then there is a book for which he can pay even 4 rupees, but he can get it for Rs. 2/-, stationery and paper also he values highly and would be prepared to pay even Rs. 3/8/- for one set but can get it for Rs. 1/8/-. He wants also a cap which he values at Rs. 3/- and can get it at Rs. 1/8/-. The utilities to him of second instalments of tables and chairs, book, stationery and caps suppose are equal to Rs. 6/-, 5/-, 3/-, 2/8/- and 2/- and of the third instalment are Rs. 4/-, 3/8/-, 2/-, 1/8/- and 1/8/-. Then A will first take one chair and one table for their first instalments yield the greatest

surplus of satisfaction over the cost. If he spends the same amount of money in any other commodities the consumer's surplus yielded will be smaller than it is in this case. Then he will take one book, one set of stationery and a second table. In the third instalment he will take a second chair and one cap, he will not take a second book: as it will yield him less surplus utility than the cap at this stage. In the fourth instalment he will purchase a second book and a second set of stationery. In the fifth he will take a second cap and a third book, and in the sixth if he purchases anything he will take a third set of stationery and a third cap. With this arrangement his satisfaction will be the greatest on each instalment of expenditure. He will stop where his money is exhausted, but if his supply of money is unlimited, he will complete these purchases and end by making the utilities of final goods equal or as nearly equal as possible.

Another important law is that of substitution.

Law of substitution. We substitute goods which satisfy our wants nearly as well or have got about the same utility as other goods

but are less costly for the more costly ones in our consumption. There is a comparison between the relative costs of the two and their respective utilities.

Which ever yields a greater surplus of utility is taken.

When wheat becomes scarce or very costly people begin to take millets because utility of the money required to purchase wheat is greater than the utility of

Substitution of goods. wheat as food. They are not willing to put in the purchase of their food so much cost if they can help it and they purchase cheap foodgrains; but if the millets also are not available then wheat will have to be purchased per force, because its utility will be

increased on account of its scarcity as no substitute giving a greater surplus utility is to be found.

Sometimes substitution of wants also takes place, Substitution of not merely of wants for the different wants. forms of satisfaction of the same need as explained above, but even of wants of different character and quality. Where want for one kind of goods is substituted by want for another kind of goods both satisfying the same physiological necessity, the substitution is of goods, and this law of substitution is based upon the characteristic that similar wants are competitive. But often there is a substitution of dissimilar wants.

Demoralisation. Thus when our moral wants are substituted by material wants we forget our moral duties and become demoralised. When our selfish wants are substituted by altruistic and moral wants we improve in character and spirituality. This process is often termed sublimation.

Sublimation. Economics also is concerned with such changes because they affect the whole course of production and other economic activities. Indeed

Importance of moral wants in economics. these considerations become even more important in the new stand point of human welfare which Economics has taken. Merely the satisfaction of material wants is not sufficient for human and social welfare, such an unthinking rush after wealth, as has been created by the old emphasis laid on the acquisition of wealth may actually lead to a decrease even in the material comforts of vast classes of the community as it has done in the case of labour. An increased emphasis on the satisfaction of moral wants may lead not merely to a more peaceful society but even to a larger production than before. Moral qualities make a labourer

efficient, and a peaceful society permits a development of production. Without honesty in our dealings all commerce will become impossible. It is a faith in moral character that has made the immense and delicate structure of credit possible. Moreover, the character of our wants determines our production. If the want for instruction is substituted by that of recreation, schools and libraries would be replaced by play grounds, clubs and cinemas, and the course of production may be materially changed. If the drinking habit increases then more breweries will be established. Demoralisation decreases the efficiency of labour and decreases the social output or the production of the whole society.

When our income is increased, the tendency is to spend a larger percentage of our income on the secondary wants than on the primary ones. The reason is clear. The primary wants are so important that they form the first items upon which we spend our resources, and so if any items have been so far starved on account of lack of funds they are likely to be the secondary wants. Consequently when the income increases, we first satisfy that deficiency in the secondary wants and then if we have still spare funds we turn to improve further the satisfaction of the primary ones. Engel formulated this fact into the form of a law, which is now associated with his name.

Engel's law. It states that when income increases, the proportion spent on food diminishes, that spent on rent, fuel and clothing remains nearly the same and the proportion spent on other items increases. It does not mean that the amount already being spent on food becomes less than before, but that as expenditure increases on other items, the proportion of expenditure on food to

the total expenditure becomes less than before. The expenditure on food also will increase as more costly food will be consumed, but the proportion to the total will be smaller. This is the reason why in the family budgets of poor persons food makes the majority of expenditure, even 75 % to 80 % of the total expenditure, while rich families might be spending on their food only 33 % to 25 % or even less. This is in accordance with the law of maximum satisfaction, because the secondary wants being only partially satisfied their utility surplus is greater than that of the nearly satisfied primary wants and so the increased income is first applied to the secondary wants and then to the primary ones.

The new emphasis on human welfare in economic study has increased the importance of the study of private budgets or the scheme of expenditure of individual families of a society. The national welfare will not be fully indicated by the study of the public budget or public finance only. To find out the real prosperity or otherwise of the nation the private budgets of various classes, of different standards of living are necessary. In these budgets the proportion spent on the necessities, comforts and luxuries should be noted. If the proportion spent on comforts is nearly nil, there will hardly be any expenditure on luxuries and nearly the whole of the budget will consist of a provision for necessities. This will indicate a low standard of living in the class examined. If at the same the national production and so the national income is found to be large then it shows that something is wrong somewhere. The economic forces are not working properly, because with a large national dividend the share of every class should be sufficient to provide ordinary comforts

of human life and something for future provision. Where the budget is confined altogether to the necessities, and specially if the necessities also are not consumed in sufficient quantities then it indicates an alarming condition of things verging on starvation. That class is well off which finds something to spend on luxuries as well, and that nation should be considered prosperous in which the masses can live well. If the deficiency of private budgets is accompanied with a deficiency of national production, the steps should be taken to stimulate it. A study of private budgets, besides, showing the standard of living prevalent in the various classes of the community will also indicate whether the increase in population is pressing too hard upon the means of subsistence. The number and ages of children in the typical families will help in estimating the potential labour power of the country as also the rate of its increase. The amounts spent on education and sanitation will be a fair measure of the society's progress and conditions of living. Often such a study may reveal connections between various unexplained phenomena and may indicate the extent of poverty and sometimes also its causes. A decent standard of living is necessary for industrial efficiency, it also helps in increasing technical skill by providing funds for technical training of children. It contributes to political contentment and social peace and makes the society progressive. A study of private budgets, therefore, is now a necessary part of the study of the economic condition of any society.

The difference between necessities, comforts and luxuries is only relative. What is luxury in one standard of life may be necessary to another. In the same standard what is luxury to a man

may be necessary to another. Thus high education may be a luxury to a class which is at the starving standard, but is a necessity in the higher standards. Roughly speaking necessities may be considered those which are essential for life, and may consist of food, fuel, shelter and clothing. Comforts may be those which increase the efficiency of the person, while luxuries may be considered to be those that are not necessary to increase the efficiency but do increase the satisfaction of the consumer. A motor car may be a comfort to a doctor but it may be a luxury for a stay-at-home landlord while at least a tonga will be a necessary for a doctor who has to pay visits to his many patients. The estimation of necessities, comforts and luxuries may differ, even with different countries with the manners and customs of particular peoples. Cap is not a necessary for the Bengalis but it is a necessary in United Provinces. Necessaries differ with different standards. The same clothing which satisfied the workman will be considered unbecoming by a clerk. Thus although there can be no hard and fast line of division of this kind yet it can be said that there is a certain amount of consumption in every standard life which forms its necessary consumption. When clothing, shelter, food consumed are of a better quality with a margin to satisfy intellectual and social wants, it is the stage of comforts and when there is sufficient income to provide for a further elaboration of wants, for developing the artistic side of consumption, it may be said to be a stage of luxury.

Order of satisfaction not fixed.	Again, the order in which a person spends his income is not fixed. The natural order is that which has been indicated <i>viz.</i> , necessities, comforts and luxuries, and ordinarily it is followed, but.
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in actual practice there may be so many variations of it. An extreme case is of persons who spend upon drinking a large part of their income even though they have to stint themselves in their expenditure on necessities. For the purpose of gaining social distinction some may spend more on clothes and ornamentation, while they remain contented with coarse food. Or a person may spend a very small proportion on his food and clothing to save a sufficient amount for the education of his children. A poor student may live a very hard life so as to pay his fee in the college. Thus for many different reasons the actual order of consumption may be different in individual cases, but the broad underlying tendency will be the same.

As wants generally exist in systems, new systems take time in developing, or if a new want tries to enter an old existing system it finds a certain resistance and takes some time before it can be assimilated. It is due to the fact that when a man acts in a way for a long time that mode of action becomes a habit and it is so embedded in his nature that he begins to act in that automatically without the necessity of thinking and deliberating in each case. Economically it is very useful. It saves a great amount of trouble and energy which would otherwise have been spent in thinking out the matter every time. But at the same time the formed habits resist the intrusion of new modes of actions; they have become automatic, and naturally recur even where the person might have preferred to act differently, if he had had an occasion to deliberate. It is for this reason that capturing a market is so important in commerce. When one

Systems of wants develop slowly.

Economic utility of habit.

Its importance in commerce.

is habituated to purchase his goods from some particular merchant or producer, he likes to go on purchasing from him, and if any new producer or merchant tries to catch him, he has to create a new habit in him in place of the old. Therefore, those who hold the market have an advantage over the new competitor. If any accident, as war, enables a new competitor to establish himself in the market then old producers lose the market and have to recapture it. It is true that they do not find very great difficulty in the recapture because of old associations, unless the new producer has also established the superiority and cheapness of his goods. This strength of habit, thus, prevents new systems of wants from developing easily and when they do develop they die out slowly.

This is the cause of extravagance. When we get an increased income, we do not quite know what to do with it and become extravagant in those items of expenditure which please us or tickle our fancy. Gradually we perceive better modes of spending our money and reorganise our budget. On the other hand when our income is decreased we find it difficult to get over our existing habits at once and so run into debts.

The principle of the formation of habits is also responsible for the fact that acquired wants, in course of time, become second nature. We have seen how clothing a secondary want has now become as important as food itself. We see something new, we use it and become habituated to its use, and then we find it difficult to give it up. There are the inveterate cinema goers.

This principle leads to a gradual rise of the

Rise in the standard of life. standard of life. New wants become established and one must earn sufficiently to satisfy all of them. But a great care has to be taken in the selection of new wants for both injurious and beneficial wants can be developed and then they become ingrained as habits. The selection is generally made by social associations and life. It is, therefore, very important to provide good influences and beneficial institutions where labour is concentrated. Permitting ale-shops and gambling houses to exist in such places decreases the efficiency of the labourers and causes a general decline and demoralisation. Only thinking individuals make independent choice, the general run of mankind take things as they find them. For them the choice is made by the society, and society's choice is ultimately effected by the care and wisdom or ignorance and neglect of the great ones, who carry prestige in the general estimation. The private interest of the dealer will make him open an ale-shop, and if he continues to thrive in such trade it is because of the neglect of those who can and should give a better lead to the social choice.

Importance of social choice.

Satisfaction increases the recurring intensity of wants. Another connected principle is that the satisfaction of a want does not extinguish it for ever but increases its intensity when it recurs. Each recurrence fixes its roots deeper in human nature and it brings with it a greater force of desire and will than before. This is another result of the same law of habit. It is another explanation of why secondary wants become as forceful and compelling as the primary ones. And this is why the religious minded point to the folly of eliminating wants by satisfying them, which only increases

them further.

As we try to satisfy our wants their number also increases. New activity creates new desires by requiring new things to help that activity, or by bringing us into contact with new things which we begin to want. Travelling abroad may create wants for things which we had never known before. A scientific enquiry may make us require new instruments. An increase in our physical exertion, and specially when that exertion is monotonous, may make us need recreation and excitement more than before. This is why the labourer runs to the ale-shop, tea shop or the gambling table or the cinema after his day's work.

The increase in the intensity and number of wants may or may not be good spiritually, that is a question with which we are not concerned at present but it does lead to a greater effort to satisfy those wants, and so to an increase in production and advance in material prosperity. Even spiritual knowledge and progress is due to an increase in the intensity and number of the spiritual wants. The whole creative energy which has made the human world what it is today has been prompted by the increasing development of wants. It is "divine discontent" which by impelling us to greater and efforts increases our power and mastery over nature, harnessing its unlimited resources for the comfort and enjoyment of man. An increase in wants leads not only to material progress but also to the development of social ideas and feelings. It teaches mutual help and association. The old self-sufficient groups are broken and the whole society is closely knit together, for

none can satisfy all his wants himself and must increasingly depend upon the labour of his fellow members, and therefore, all should begin to think and feel in common terms.

Another effect of the increase of wants noticed by the biologists is a decrease in birth rate. As man's intellectual life develops, it turns sexual energy in other directions or what is called a process of "sublimation" takes place, decreasing the birth rate in society. Increase in wants leads to lower birth rate. Process of sublimation. There is an economic reason as well. An increase of wants means both a rise in the standard of life and a harder struggle to procure wealth for satisfying our wants. Naturally, therefore, prudent men will not like to have many children unless they are able to provide for their children in the same standard of life. They are likely to exercise moral restraint.

This principle supplies another natural check to the increase of population. It develops in strength with the increase of material prosperity and production, and then further develops production in its turn. For while the increase of wants checks the birth rate on the one hand it increases production on the other. Natural check to increase of population.

Man's wants are unlimited and are capable of indefinite development. But the individual's consumption is limited by certain tendencies. Firstly there is the law of satiety based upon that of diminishing utility, when the utility is zero the point of satiety is reached. Limits to consumption. Output, income, price level. Law of satiety. This is the physiological limit to consumption. Every person tries to satisfy his wants upto the

point of satiety and does not like to consume more. Although the same want may reappear, when the physiological need is felt again, still for the time being every individual want is removed by satisfaction. Consumption beyond the point of satisfaction may even cause disutility and discomfort as is the case when a person is made to drink or eat even though he is not hungry or thirsty. Further the time at the disposal of a person also limits his consumption just as his money resources do. One with limited funds must so arrange his expenditure as to derive the greatest satisfaction therefrom. Similarly he has got a certain period of time and must distribute his time between the satisfaction of the different wants, such as recreation, instruction, social intercourse, toilet, taking food and so many others, in such a way that he obtains the greatest possible satisfaction from that expenditure of time; or in other words, like his income he arranges his time in some such way that the last instalments of all things consumed in a certain period of time yield, as nearly as possible, equal utilities or satisfaction, so that the consumer's surplus from that expenditure of time is the greatest possible. Often it happens that a person finishes his meal hastily or even leaves it half finished so that he may be in time for the cinema, or may catch a train, or may go to school. In those cases the satisfaction expected by going to the cinema or the school is greater than that which would have been obtained by eating the remaining food.

The foregoing discussion brings us to the third limit, the comparative utility of things consumed. If within our resources of time and income we find that one thing will yield more utility than another then we

will naturally consume the former. But comparative

Cost. utility is always referred to comparative cost. Even if a commodity is much more useful than another, but if it is beyond our resources, we will not purchase it. Further when we compare the utilities of two things, we do not compare their absolute utilities but their surplus utilities, *i. e.*, the utility which each commodity yields over its cost. We compare not merely the utilities but also the costs, so as to get the maximum satisfaction from that expenditure of costs. Lastly our consumption is limited by our resources or

Income. income. If our income is large we can purchase the costly commodities, and if the income is small even the cheap commodities may be beyond our means. The consumption budgets of poor people find it difficult to provide for the ordinary amenities of life.

In the modern economic life the cost of commodities is represented by the price-level. Price-level. If the prices are high, the same amount of income will yield smaller satisfaction than it will do when the prices are low, because with higher prices smaller quantities of commodities will be purchased and our wants will not be as well satisfied as before. If the rise is in the prices of certain

Particular prices. particular commodities only then the influence of the rise upon the consumption of any class of persons depends upon the importance of those commodities in the consumption budgets of that class, the elasticity of the demand for those commodities, and the availability of cheaper substitutes. If the food stuffs rise in prices, generally the poor will be hard hit, as the major part of their income is spent on them, but the rise will not affect the rich very much. If only

one stuff, *e. g.* wheat rises in price then the effect will be mitigated by the adoption of cheaper food grains. As the demand for food grains is not very elastic, a rise in their prices will leave a smaller margin of income to be spent on the other items of the budget. On the other hand if the rise is in the price of commodity the demand for which is elastic, or which does not occupy a very important place in the budget, on which only a small part of the income is spent, or for which a cheaper substitute is available then the effect on the total satisfaction will not be very great, for either the commodity will be consumed less, or a substitute will be adopted, or even if it has to be consumed as much as before the decrease in the margin available for other purposes will not be heavy. If the change is in the prices of commodities used by the rich only, as motor-cars, the decrease in total satisfaction will be small, because the demand for such things is generally elastic, and secondly because the resources of the rich are high. On the other hand a decrease in the prices of certain commodities will give a wider margin for expenditure in other ways, the width depending upon the saving of income made from the consumption of those commodities. If there is a general lowering of prices then the total satisfaction will be increased. The index number at the time will indicate the general rise or fall of prices. The way to frame it has already been explained in another place. The general level of prices will rise or fall under the action of some forces of general affect such as war, inflation or deflation of currency, rise or fall in the value of the money metal, a decrease or increase in the general productive activities of the society, an economic crisis or a general condition of prosperity and an increase in population

or the general demand. The affect of a rise or fall in the price-level is felt mostly by those whose incomes are fixed. If the incomes also rise and fall at the same time then the effects will be a little different. If the incomes rise with the rise of prices, and rise more, then the total satisfaction will be increased, and if they rise less than the prices or remain stationary then the satisfaction will be decreased. If, on the other hand, the income falls equally with a fall in prices, the satisfaction remains the same, if it falls more then the satisfaction is decreased, and if it falls less then the satisfaction yielded is increased. Generally if the change in prices is sustained for a sufficient time wages also follow, although they take more time in rising than the prices. To keep them varying in production a system of sliding scales may be adopted. It is, however, often inconvenient and difficult to decrease wages with a fall in prices, because when once a person becomes accustomed to a certain income a decrease in it is felt as a hardship. The entrepreneurs are the persons whose incomes rise and fall automatically with the prices, for their profits at any particular time depend upon the prices of their produce ruling in the market.

While the satisfaction of the individual depends upon his money income, the total satisfaction available to the society as a whole depends upon the total social production or output of actual commodities and services. One can consume only what one produces or its equivalent in exchange. One person may produce more than another, and he will be able to get larger quantities of goods in return for his produce and thus increase his satisfaction. Or even though he produces the

same quantity of goods, still an increase in the prices of his goods relatively to other commodities will give him a larger quantity of goods in exchange for his own than before. But this extra satisfaction will be at the expense of the satisfaction of the other members of the society who have to spend more on his goods and so get a smaller margin for other expenditure. Where several communities exchange goods with each other, a relative increase in the prices of the goods of one community will have a similar result. If the demand for its goods is inelastic, then such a rise will decrease the satisfaction of the other communities ; but generally such commodities in international trade are produced not by one country but by other countries as well, and they have a world demand and a world supply price, so that a rise of the local prices decreases the foreign demand for them, and the prices again tend to come down. Therefore, a nation will ultimately get from other nations what its own commodity supply, which it is ready to give in exchange, will justify, or its satisfaction will depend upon its production. So far as the internal exchange is concerned the total satisfaction of the society clearly depends upon the total output of commodities, the relative increase or decrease of the satisfaction of particular individuals being neutralised the total.

National
dividend.

A nation's production in a year is called the national dividend or income, and it is this which determines the satisfaction available to the members of that nation. If a nation consumes more than it produces, then it borrows from other nations, and must in future produce more to pay for the debt or should consume less. A mere general rise in the prices of its goods without any change in the output of the commodities

will not affect its total satisfaction as the same rates between different goods will be maintained in the internal exchange. A similar result will follow a general lowering of the prices. Therefore, the

Economic prosperity. economic prosperity of the nation as a whole will be determined by the amount of its production. When its nationals earn more than in proportion to the rise of prices, they will be well off. They will earn more generally when they produce more. Thus a generally increased production will indicate an increasing satisfaction of wants or an advancing standard of life in the country. The actual condition of individuals will depend upon the conditions of the distribution of the national dividend between the various classes of producers.

Another limit to our satisfaction of wants in the present is set by the necessity of saving, for it decreases the income available for being spent. It should be remembered, however, that savings represent only postponed satisfaction.

They will limit our satisfaction only in the present, otherwise in the total they even increase the whole satisfaction by being used as capital and producing extra utilities. We may save wealth either to provide for those towards whom we feel a duty to do so, such as our children and dependents or any charitable institutions which we may desire to

Why we save. support; or to provide for our own future consumption as prudent persons or because we are induced to do so by the lure of the reward or interest which we can get by investing our savings.

Saving necessary for production. Saving is necessary for production itself, as these savings supply the capital which increases production and

increases our satisfaction. If the whole of our income is spent, then while the demand for goods will increase immensely, their supply will decrease as no capital will be available to produce the extra quantity of goods wanted. As a result,

Too much
consumption
may decrease
satisfaction.

the prices will increase and the satisfaction obtained by spending the whole income will not be as great as it should have been. If the whole income

is not spent, but an unduly large part is spent, the results will be similar. On the other hand saving the whole income is not possible as the wants have got to be satisfied, and if only the necessary wants are satisfied to increase the savings, then the incentive to production will be gone as the demand for goods will be decreased, and the extra savings will be idle. Saving for the sake of saving is dear to the miser, but economically one saves only to increase his total satisfaction, so that saving which compels him to stint himself unduly decreases his present

An equilibrium
between
saving and
spending.

satisfaction too much to be a healthy one. An excess of capital also may ultimately cause a crisis. There should be an equilibrium between saving and spending, for that will

also maintain an equilibrium of production and consumption which is the aim of economic activities. While spending will provide the demand for goods, the saving will provide the means to supply those goods. If more is spent and less is saved then the increased demand for the means of supply or capital will raise interest, which in turn will induce fresh savings till the equilibrium is reached. Similarly if less is spent then there will be an excess of capital, a decrease in the demand for it and a fall of interest resulting a decrease in the savings.

Still another limit to our consumption may be set by social restrictions. Sometimes civil laws may lay down the kind and quantity of the commodity to be consumed, or the manner of consumption. Rationing of provisions in war time is a case in point. The consumption of intoxicants is regulated by the state. Even in ordinary municipal life we are familiar with the rules about driving vehicles, performing music late at night, and the sanitary use of our premises which all prescribe the conditions under which we may satisfy some of our wants.

Consumption is the beginning and end of all economic activities. It is the impelling motive, the directing force behind such activities and ultimately the activities end when the purpose of this motive, the satisfaction of wants is fulfilled. Between these two points the activities of production, exchange and distribution take place. It is natural, therefore, that this impelling motive should determine the character and energy of the resulting activity or the quality and quantity of production. If every person produced goods only for his own consumption this relation would have been perfect. But in modern society every producer produces for the consumption of others as well, while the goods he requires are produced by others. Thus while every one is a producer and a consumer at the same time he may not hold this double capacity himself in relation to the same goods. A silk weaver may never use silks himself. Consequently new production is directed not by the demand felt by a man but by the demand of others calculated by him.

Consumption
determines
production.

Producers and
consumers—
Separate for
specific goods.

A tendency to equilibrium. In this calculation there may be mistakes and the equilibrium between consumption and production may be disturbed ; although there is a general underlying tendency towards an equilibrium, still the disturbances may often be serious and harmful. One of the forms of disturbance is an over production in a particular industry owing to some miscalculation of the demand, and the resulting crisis. If there is a general prosperity in the nation and so a general increase in productive activity in all times the increased production will rather stimulate consumption. As has been explained at another place, when all commodities are produced more then the ratio of exchange between them will be maintained, and every one is likely to have sufficient means to purchase more of other commodities because he himself has earned more by his extra production. Actually, however, increased production is likely to be due rather to an increase in demand having already appeared. An exactly equal increase in all the commodities at the same time is not very likely and so if the general increase in productive activity is without a pre-existing increase in the demand, then actually it may bring about a crash sooner or later.

Generally, increased production may stimulate consumption. Another result of the separation of consumer and producer of specific goods is that often an imaginative producer may invent new designs of things and may stimulate new kinds of consumption. Thus instead of the consumption determining production the converse may be true. It is what we see happening every day. The systems of advertisements, fairs, shows and markets help in this

work. New styles and fashions are creating new wants every day. Indeed if this were not done, there would have been little work for the producer. Ordinary wants can be satisfied in a simple way with much less effort. It is the variety of the ways of satisfaction that leads to new tastes, new ideas of comforts, a higher standard of life, and an increase of production. It is a kind of circle, production stimulates consumption and consumption determines production. The relation between the two is close and intimate. It is production which supplies a man with the means of consumption. Consequently the means will determine what and how much will be consumed, while the means themselves will be acquired by the action of the desire for the satisfaction of wants. And the intensity of the desire will determine the quantity of the means that can be obtained by people under their particular circumstances of material resources and industrial life.

CHAPTER XXXII.

PROBLEMS OF CONSUMPTION.

To write adequately on the problems of consumption would be to write a separate book on Social Economics. The subject is vast and of the greatest social importance. It is, however, more of applied or practical Economics than of the theory itself. But a mere study of abstract ideas is barren unless we acquire a habit of always considering their bearings upon practical problems. In the short compass of this book only a very brief treatment of some of the chief questions can be attempted.

Like other activities consumption also is per-
Social claim on our expendi- formed in society and its social effects
ture. can not be ignored. In fact part of

our expenditure is often incurred
specifically for social purposes. The taxes which we
pay to the government, the subscriptions to charit-
able and public purpose are our contribution to the
well being of the society as a whole. Besides this

Duty of the
consumer to
society.

every consumer owes an elementary
duty to society; that he should so
satisfy his wants as not to interfere
in another's satisfaction of his own

wants. Let him deal with others as he would be
dealt with himself. As it will be an obligation upon
all, it will increase the satisfaction of every member.
If a person performs loud music late at night he will
interfere in the repose of his neighbours. He would
resent if his own sleep were so disturbed. There-
fore, he should respect the convenience of others if he

wants his own to be remembered by them. Thus alone he will contribute to the satisfaction of others, and will at the same time increase his own. To lead the fullest possible life we must sacrifice part of our liberty to the stability and peace of the society.

Similar conditions will require that a person should not arrange his consumption so as to injure the social satisfaction, or the consumption of the other members. If another man commits such an act then one would feel annoyed, for a decrease of the social satisfaction will mean a decrease of one's own satisfaction also sooner or later. And yet that is what is so often done. We ignore the social effects of our consumption, and prompted by the doctrine of *laissez faire* we consider ourselves entitled to act in any way we please. Apart from the duty which a person owes to those who have supplied him with their products to satisfy his wants, even the "enlightened self-interest" should tell him that such actions react upon the doer himself in the long run.

Our consumption may have several injurious effects upon the economic activities in society. Our consumption may withdraw labour and capital from useful social production to produce goods which give us a mere passing satisfaction. Thus while there may be a shortage of dwelling houses labour and capital may be engaged upon building theatres and cinemas. Or our demand may engage labourers in dangerous operations, such as working in mines and manufacturing explosives. In these cases, however, the social importance of the work may often be very great. A third effect may be a decrease of the efficiency of the consumer himself, making him

a less efficient member of the society and thereby decreasing the available national dividend. Such a consumption causes a double loss to the society.

A double loss to the society. One is caused in the decrease of the consumer's efficiency for future, and the other consists in the expenditure

of existing productive resources on those harmful goods, thereby preventing the production of other socially useful goods which could have been otherwise produced. Alcoholic drinks, obscene pictures and literature, gambling accessories and other similar objects are examples of such injurious goods.

By socially useful goods is meant those commodities which not only satisfy human wants in the present but also increase a

man's efficiency for the future. Providing ordinary articles of comfort would be useful socially. Even hoarded wealth will be better than the wealth spent in producing injurious articles, for although lying idle for the time being, still it can be used for some useful purpose some day, while by using it for producing such goods it is lost and only leaves a decreased efficiency as a legacy.

An emphasis upon this point does not imply an

acknowledgement of producing as the chief aim of economic activities. Wants have to be satisfied in the future as well, and a prudent man will not like to endanger that future

satisfaction by impairing his productive efficiency for the sake of a passing pleasure. Just as he will try to save part of his income for future consumption, similarly he will so arrange his economic activities as not to hinder such activities in the future. For saving he could have an excuse, that his income was small. In this case even that will not help;

He may spend his income to please himself, but he should not feel satisfied at having his future satisfaction decreased by his own action. Therefore, to secure a large total satisfaction itself it is necessary that the productive power for future may be preserved.

The enjoyment of luxury is attacked on such grounds. Luxurious goods may be divided into two classes. One class consists of such goods as are harmful to the consumer himself. About these there will be no dispute. They stand condemned. The other class of goods consists of commodities or services which satisfy our superfluous wants, or wants due to a whim, fancy, caprice or a kind of ticklish sense of comforts. Although these latter kind of goods can not be said to contribute to the productive efficiency of the society, still they are not altogether barren of good results socially. In the first place the luxurious expenditure encourages art and develops the finer side of production. The aesthetic sense is developed in the society and the pleasure derived from this source is not negligible. It is possible not only for the rich to have this pleasure but, the poor man may have it in the public parks and public picture galleries. And the credit for developing this art and culture should go in a great measure to the luxury of the well to do. Human happiness depends not only upon material goods but also upon mental pleasure, and the importance of the spare expenditure of the rich in this connection can not be doubted.

Secondly even luxurious expenditure gives work to labour and transfers wealth from the rich to persons who are in greater need of it. If this expenditure is

Problem of
"Luxury".

Use to society—
Art and culture.

Creates new
work.

altogether banned then after the satisfaction of the ordinary wants the extra wealth will lie uselessly with the rich, and some of the labour that would have been used will also remain unemployed. Further, if a variety of enjoyment is thus made impossible for the individual an incentive to creative effort will be gone. Many are led to increased exertions by the ambition of one day living as happy a life as they perceive others doing. The rich man's luxury is a proof of the possibility of the success of human efforts, and is an encouragement to another to attempt what others have already proved to be not unattainable. There is an element of truth in these contentions but it can not be denied.

The evil of luxury. that there may be circumstances which may make luxury out-of-place sometimes. If the pressing needs of the society have been fulfilled then the extra work created by luxurious expenditure will undoubtedly be helpful. If, however, numerous people be homeless, or be living an unhealthy and crowded life the labour and capital that is spent on the pleasure houses for the well-to-do would have been more usefully spent in solving the housing problem. It is true that in actual practice a strict regulation of this kind is not possible, still it is possible to strike out a middle course of discouraging excessive expenditure on luxuries, specially of those kinds which do not develop the artistic taste, or which are injurious to the efficiency of the consumer himself. While luxury should be allowed to perform the social function of advancing art and culture, and encouraging creative efforts, all wasteful expenditure should be avoided as much as possible.

That expenditure may be considered to be wasteful which does not yield a satisfaction commensurate with its cost. Thus from the individual's point of view goods that are lost, destroyed, thrown away, or rotten are wasted. The productive effort that was spent upon them has been lost without giving any satisfaction. The fresh effort required to replace them will be withdrawn from some other production which it would have effected if this wastage had not taken place. It is waste also from the social point of view. In this the two view-points coincide. But there may be an expenditure which may not be a wastage for the individual, and yet may be waste for the society. Even drinking and gambling may be considered by the individual to yield a satisfaction equal to the cost, but from the social point of view the productive effort spent upon manufacturing wine would have yielded greater satisfaction if it were spent upon producing food stuffs. When vast areas of land are kept from cultivation to provide hunting preserves for the owner there is a social wastage.

From this point of view it is better to spend our income more on durable goods than on perishable goods. In the case of durable goods productive effort is not lost on frequent renewals. Of course such necessities of life as food have to be consumed, but where a choice is possible it is socially useful to produce durable goods.

The great social importance of what and how we consume to satisfy our wants has led to the advocacy of state control of consumption. Some persons would prefer to see the state making no interference, and leaving the people free in this respect. But some

kind of control has always been considered necessary. In fact all organised social life will become impossible if perfect liberty were allowed.

The objects of state regulation may be many.

Aims of state
regulation and
its methods.

The aim may be to secure as full a life as possible to every member of the state by prescribing the way in which one may use his property so as not to interfere in the legitimate of enjoyment of another. Such regulations are a part of the ordinary law of the land or are incorporated in municipal rules. Another aim may be to save the consumers from being cheated by penalising adulteration of goods, licensing dealers from whom reliable goods may be obtained, and by fixing prices. This last method is seldom adopted now. A third object may be the conserving of supplies in times of emergency, as happened in the last world war. Or the aim might be to correct certain habits of consumption by regulating the sale and purchase of certain commodities in the interests of the consumers. The regulation and control of intoxicants and poisonous drugs with this purpose exists in all progressive states. And lastly a state may try to encourage the use of certain commodities at the expense of others for the purpose of establishing an industry in the country. This may be done either through a policy of protection by making the foreign commodity more costly than the home made one, or by prescribing the ways and the occasions on which a particular commodity is to be used in preference to the other. Other ways of state interference are the penalising of activities like gambling or keeping gaming houses, and the taxing of certain kinds of consumption. Taxes on consumption, however, are mostly for the purposes of revenue when

they are not excise or protective customs duties, but are in the form of direct taxes.

Remaining absent from a productive process and still receiving an income is not very commendable from the economic point of view as it means the waste of an amount of labour in idleness which could have been better utilized. But in the case of the capitalist-absentecism is indeed beneficial. It enables the capitalist to invest from a distance without himself being present.

Of the capitalist good. This increases the mobility of capital. If the capitalist had to go himself with his capital then the movement of capital would have been greatly hindered. Absentecism of the capitalist enables capital to go where it can be best employed. It is a help in increasing production. It is good in another way. It enables the separation of the functions of the capitalist and the entrepreneur. The possession of capital does not mean an ability to organise industry. When the capitalist contents himself merely with supplying the capital he enables the organising of industries to be performed by those who are most capable for it and thus helps in the development of production. His consumption of his income, therefore, is not socially bad but useful.

Functions of capitalist and entrepreneur separated. But the absentecism of the landlord is bad. He is not a mere capitalist supplying capital. In his case the difference is that the tenant cultivator will not do many things which only the landlord can.

Landlord's absentecism—bad. Thus the tenant will not make permanent improvements will not be able to use costly machinery or introduce, large scale production to any extent. If the land-lord himself attends to the work he can undertake more

costly but improved methods of cultivation and can increase his production.

Those who go on tours are helpful in bringing new ideas to their country, but their consumption is socially wasteful so far as it is of those goods which are produced twice for their use, such as houses built for his use in the home and the foreign countries. They are generally goods of usufructuary consumption. In case of goods of destructive consumption the position as between the two countries or between two places in the same country may be different, but on the whole the consumption is of the same amount. It is true that this consumption is not producing anything at the time, but travelling for change, and recreation even does increase efficiency of work ultimately if not indulged in immoderately. And then it does help in the propagation of new ideas. But as between the countries the tourist benefits the producers of the countries in which he tours at the cost of those of his own native land.

Consumer's associations. Consumer's associations. Consumer's associations can be either for the enjoyment of goods in common or for cooperative purchase and sale of goods. The former kind are true consumers' associations, while the latter belong in one way to distribution as well as to exchange since they do the work of the merchant and distribute the profits, which the merchant used to get in a new way. The main purpose, however, of those associations also is to assist the consumer and as such they are properly dealt with in this department.

Association for common expenditure. Association for common expenditure is the characteristic of communistic societies and doctrines. Its economic advantages are undoubted. The right of spending from the common store might be according to one's

wants, as was the case with communistic societies, or according to one's contribution as is common in the common messing system of school boarding houses. In the former case a rigorous discipline has to be kept to prevent persons from consuming more than their share, while in the latter this object is automatically secured. The former failed and the latter are in general use everywhere. They do effect a great deal of economy in common expenditure and save a good deal that would have been wasted if each had made his own arrangements. It is a kind of large scale consumption. But its limitations

Limitations. are clear. It has to be a very small association so as to keep personal supervision possible. What is very significant is that they generally obtain amongst persons not living in families. There is a certain charm and comfort of family life which is not obtainable in them, and so association of families in common consumption is not likely to be so successful except for temporary purposes, as in a hotel.

On the other hand the other kind of organisations for cooperative purchase have developed immensely specially in England. They were founded expressly with the object of eliminating the profits of the middle men. They are consumers' unions which purchase wholesale from the producers direct without any intermediary middleman. These goods they sell to the members and also to the public at market rates. The profits that are made are not distributed to the members according to their share capital for that would have been against their basic principle of eliminating profits, but they are divided amongst the members according to their purchases, providing an inducement to purchase from the cooperative stores only and not from the ordinary shop-

keepers. Or a member may leave the dividend with the society as capital lent by him and get on interest for it. All the profits are not so distributed but a part goes to the reserve of the society so as to increase its business and part is spent in works of social benefit such as reading rooms, schools, thereby providing other advantages besides the cheap cost of goods to the members. Sometimes these societies federate

Wholesale societies. themselves and form wholesale societies. With increased resources they even start mills and factories, and become their own producers.

The management is entrusted to a paid directorate responsible to a body of representatives of the various unions. There are two very efficient such wholesale societies in England. But in these cases the general body of consumer-members loses touch with management and bureaucratic methods and favouritism creep in. The labourers in the mills have no voice in the management which is carried on in accordance with the ordinary capitalistic principles.

Advantages of such associations are great as they are in all forms of cooperation. They develop mutual confidence and respect and are a training in combined action, thrift, and democratic organization. Economically they eliminate the middlemen and make his profits available for other purposes. They distribute those profits amongst the members and help to decrease the inequality of wealth. They stop unhealthy advertisement and adulteration of goods. But what is more important still is that they help to adjust production and consumption exactly by bringing the producer and the consumer in direct contact. The loss of this contact is one of the evil effects of the present industrial system making miscalculations

about the demand possible. Moreover, these associations having a certain demand in their control often develop production of goods and thus become a means of the advance of cooperative production, as they are doing in England. In ordinary capitalistic production the private manufacturers may find it unprofitable to provide some services which the consumers require, but a consumer's association may provide for them. That is the principle of the provision of electric and water supply by municipalities. Further private producers may form amalgamations and establish monopolies to the detriment of the consumers. But if the consumers themselves become the producers they will be automatically protected from the monopolistic exploitation.

But such consumers' associations can be formed only in a limited circle. The numerous Limitations. consumers scattered all over the country cannot be brought into one association. Moreover as the management is to be by committees it is not likely to be so efficient where the risks are great, or where standardisation of products is not feasible and variety to suit individual tastes is required. Cooperative stores often do not provide novelty and variety in their goods for the sake of economy.

The food problem has already been discussed in connection with Malthus' law of Other special problems— population. Population has been increasing at a rapid rate. If the natural checks of wars, famines, epidemics Food problem. had not been there, the rate would have been greater still. We have seen another check in the growth of wants, which decreases birth rate. Still the population goes on increasing and it does become a question whether the food supply will be sufficient to main-

tain the increased number. Taking countries separately the situation sometimes may be serious.

For particular countries it may be true that the food problem can become acute but for the world as a whole it may safely be said that if a country applies its productive energies properly in producing things for exchange, it may get food even though it does not cultivate enough itself. Moreover, vast unoccupied lands are still waiting utilization. If the whole available land were brought under use it would be able to support a far larger population than it does at present.

Even then it may be admitted that the population is undoubtedly increasing. The exact ratio of the geometrical and arithmetical progression is farfetched, but that there is an increase can scarcely be doubted. The problem is complicated by the attempt of powerful nations to gain control over as much of unoccupied lands as possible to the exclusion of others.

But then we should not forget the scientist and the principle of substitution. That patient worker for knowledge may one day announce to the waiting world his success in producing artificial food, and we should remember that the law of substitution permits us to use one kind of food for another. The possibilities of this line of development are immense; the hopes are not unjustified by past record and the solution of the food problem may come one day from the laboratory.

One of the most serious problems created by the wage system is that of unemployment. In industrial countries hundreds of thousands labourers are thrown out of work simulta-

neously. In India the problem of unemployment is acute specially in the middle classes, and the poorer classes also live in abject poverty. Various schemes are being tried to relieve it. Assisted emigration and settlement in other countries with full rights of citizenship is one. The opening of relief works such as building of roads, bridges, railways and canals to relieve distress is another. In India this

method has been successfully worked Relief works. in famine relief. The main principle of this relief, whether given to the unemployed or to the famine stricken, is to provide work at subsistence wages. The remuneration is just sufficient to supply the necessary cost of living, so that the moment the conditions of industry improve, the extra wages available elsewhere may be drawn away from the relief works and the government resources, may not be unnecessarily taxed.

Another scheme tried in European countries is that of unemployment insurance. An Unemployment insurance. insurance against the risk of unemployment is effected for the labourer partly at the cost of the state and partly of the labour. If the labourer is thrown out of work then he is offered work at the standard wage, which is a mere living wage just to supply his bare necessities. If he can get better work he refuses the aid otherwise he accepts. If no provision for work can be made the insurance benefit is paid to support him while unemployed. This problem is assuming such a shape that inspite of all that is being done it has not yet been fully brought under control. The unemployed concentrated in such Social danger. large numbers in particular places, as industrial labourers generally are, are a danger to social peace. Moreover, the society

Social responsibility. has a moral responsibility also for their maintenance in as much as this phenomenon is a result of the modern industrial organisation, from which the other classes are deriving special benefit, and so the state rightly takes responsibility for it and subsidises the unemployment insurance. The contribution of the labourer also may be defended on the ground that the risk of unemployment has now become a common risk of wage-work and so the labourer is likely to provide for it in the rate of his wages. specially when he is backed by powerful organisations like trade unions.

The justice of poor relief is now seldom questioned and it is recognised that the state has a responsibility for the destitute and the disabled members of the society. But the method of giving relief is often a point of controversy. In India poor relief is mostly by private charity and that also not organised but depending upon individual action. Such action

cannot naturally be very informed. The situation here is complicated by the existence of large numbers of religious ascetics whom it will be difficult and well nigh impossible to bring to the workshop, nor can the people be prevented from helping them. There is a large class of street beggars, and their number is swelling. The problem will have to be faced one day, and the sooner it is recognised the better. Private relief is not likely to be so well informed and is likely to be wasteful, specially when it is not given in an organised form. In such cases public relief is of greater benefit as it can be more

extensive than the private one. The government can also make the relieved do work, which private individuals are unable to do. The chief point in this case as in that of unemployment

relief is that the allowance given or wages for work offered be sufficient for the bare necessities of life so that they may not provide an inducement to receive relief even when work elsewhere be available. In the case of the crippled and the disabled this principle will not apply. They have to be maintained permanently and there is no point in giving them relief and yet keeping them in misery. In their case a higher rate meeting the ordinary wants of food, shelter and clothing is necessary.

There is a controversy whether outdoor relief is superior to the indoor relief of the almshouses and workhouses. It is urged in favour of outdoor relief that it maintains the self-respect of the relieved which they lose if they come to the almshouse or the work-house, that one can easily find out their condition and necessity by going to their place. A third argument presented is that the number of people requiring relief at different times is not the same but is varying, so the public houses built for the housing of the relieved are likely to be insufficient at one time and will remain empty at another and this involves a wastage.

On the other side it is argued that in outdoor relief there are many chances of fraud and misrepresentation. The dishonest may try to show themselves worse off than they really are just to get the relief, or they might be getting relief at the same time from other sources. These things are not possible if they have to reside in the public almshouses when receiving relief. There full supervision can be kept over them. Moreover, it often happens that when work in industry revives again, the employers reduce wages in expectation of the deficiency being made up by public relief. But

if the relief be given indoors the relieved cannot work for others till they leave the almshouse and so there is no inducement to reduce wages. Indoor relief is easy to manage and work. It is true that some of the poor will find it difficult and humiliating to come to the almshouse, but this very reason will prevent people from coming to ask for relief at the cost of the tax payer unless they are absolutely reduced to a destitute condition. While the advantages of indoor relief are undoubted, this also has to be admitted that it is bound to leave many unprovided who prefer to suffer starvation to the humiliation of the almshouse. But probably such cases are better met by private charity than by government relief.

One of the most pressing and important problems is that of housing. Over-crowding is injurious to health. Enquiries and statistics collected in England show that the the death rate, and specially the infantile mortality, is great in those classes that live in overcrowded houses. In Manchester the proper number of persons per bed room is fixed at 2·5 persons, one child counting as one half. more than this is considered overcrowding. In India.

Housing problem—its importance.

Terrible crowding in India.

the position is simply deplorable and unhealthy in the extreme. In small single mud huts with thatched walls and roofs of a few square yards without windows crowds the whole family consisting not only of the husband and the wife but of other relations as well in addition to the children. The condition in the rainy season becomes terrible. Even the middle classes live five and six, and often more per small rooms. In crowded towns like Calcutta and Bombay whole families live in single rooms in which the rays of the sun never enter.

Evils of crowding.

These single rooms are not bed rooms with separate kitchens, but are kitchens bed rooms, sitting rooms all combined. Such a condition of life is exceedingly injurious to physical, intellectual and even moral health.

A certain amount of home comfort is necessary for efficient life, and home comfort to a very great extent depends on the housing accommodation available. Overcrowding destroys all privacy and causes moral deterioration. Proper comfortable and sanitary houses are an essential of human welfare. The need of a good house is one of the primary wants. It is as necessary as food for a robust healthy life. In old days every one had his own house built by himself, which was generally adapted to his needs. Although they were not quite so sanitary as houses built now are, but usually they were healthy and open. But the development of the industrial life has introduced the wage system. The labourers crowd into cities and live in rented houses. As they are unable to pay high rents they crowd in slums. The provision of good sanitary houses at a moderate rent is one of the greatest necessities for their welfare.

There is a disadvantage in building a house for the labourer and transferring the ownership to him for he then becomes fixed to that place and his mobility is decreased. This system is good for the cultivator who is naturally attached to the locality where his land lies, but for the wage earner it is advisable to supply a suitable house at a moderate rent. To build good houses and rent them on small rents is not a business proposition, and the problem can be

Certain amount of housing accommodation necessary for healthy life.

In old days people had their own houses.

Wage system and rents.

wage system.

Disadvantage of a house and its remedy.

Schemes.

tackled only by those agencies which do not care to derive great profits from building houses for the labouring classes. It is done by the employers when

Garden cities. they build garden cities for their labourers near their factories instead of the labour barracks. They undertake the additional expense because it repays them in the increased efficiency of their workmen. Sometimes garden cities are built for the middle classes also.

Semiphan- Or such work is undertaken by semi-
thropic socities. philanthropic societies which build houses only with the intention of providing better housing accomodation for the poor

Perpetual classes. Sometimes perpetual funds
funds. are founded for this purpose, their interest utilized every year in building new houses. The increasing receipts from rent also are used for the same purpose and so the building fund goes on swelling. Houses are also

Built by co- built by cooperative consumers' socities.
operative build- ing societies and consumers' societies. In United States cooperative building societies have been extensively founded and are the most developed form of cooperation in

that country. But the problem is so great and the work to be done so immense that private agency alone cannot cope with it. In such cases it is the duty of the society as represented by the state to take up

Duty of the the work. and in European countries the state is
state. doing it. In England the state grants a yearly subsidy of £. 6 to £. 9 per house built by private enterprise with certain conditions about selling or letting of the

State sudsidy houses and provided, they are rented
in England. to the working classes at a certain limited rent. The Chamberlain Act

also authorises local bodies to lend to those labourers who want to build their own houses 90% of the market value at a moderate interest.

The municipalities have a duty to perform in this connection. They supply electric light and water works, but are very much indifferent to the slums existing within their limits. Supply of free or cheap water, proper system of sewerage and watering roads are

very important and so is the clearing of the slums. Indian municipalities are sadly deficient in this respect. In India very little is done.

Some thing is being done in Bombay, but an extensive all India campaign is necessary for this purpose. The slums injure not only the dwellers in them but are a standing danger to the whole

society and form the breeding ground of many social evils. They do not help either the morality or the peace of society. For the sake of the community which they represent, and for the sake of humanity it is the bounden duty and should be the first consideration of municipalities to devise means to

clear the slums, build sanitary houses and rent them at moderate rates just as they supply water and electricity. Indeed the electric supply can wait. The government and the municipalities should combine in solving this problem and making the lot of the poor

more comfortable, saving the fair name of the community and producing conditions of healthy and prosperous life all round.

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